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TELEGRAMS: "CHEMICUS,
CANNON, LONDON" (2 Words)

PUBLISHED WEEKLY AT 42 CANNON STREET, LONDON, E.C.4.

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DIARY) 20/- PER ANNUM
SINGLE COPIES 9d.

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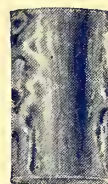
Can be Refilled

The "Allenburys"
Pocket Iodine

Just like a fountain pen. Clean in use.
No Brush required. Convenient to carry.
Fits the vest pocket.



Contains
B.P.
Tincture
of Iodine



Packed in outers
containing one dozen

Retail Price 1/6

Subject to usual Speciality discount

Bonus of two tubes with all orders of one dozen.

Allen & Hanburys Ltd. :: London, E. 2

Telephone—BISHOPSGATE 3201 (ten lines)

Telegrams—"GREENBURY'S EDO LONDON"

ACTUAL
SIZE

**It pays you to stock our
Sulphur and Orange Tablets.
People always come back—
they appreciate a good thing.**

**Made with the best Icing Sugar,
Sulphur, and Cream of Tartar, the
Tablets are flavoured with genuine
Sicilian Oil of Sweet Orange.**

HERE is another of our very popular 6d. lines, attractively packed and displayed in a striking outer.

It is not surprising that the public welcomed this departure from the old-fashioned Sulphur Lozenge.

A big seller last year—it will be bigger still this year!

SULPHUR AND ORANGE TABLETS

POPULAR AND PROFITABLE

Packed in outers of 1 dozen bags as below. Showcards free.

MINIMUM
RETAIL PRICE **6d.** PER
BAG
PER GROSS **45/-**

WHOLESALE
PRICE **4/-** PER
DOZEN
GROSS LOTS CARRIAGE PAID

THOMPSON & CAPPER WHOLESALE LTD.

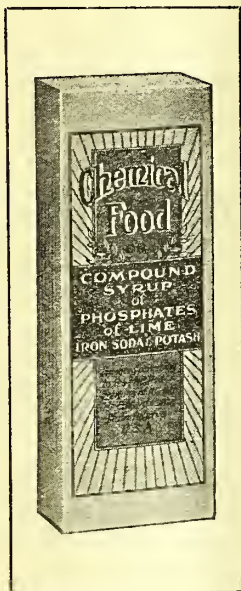
**MANESTY BUILDINGS
COLLEGE LANE
LIVERPOOL**



★ Note ★

Having disposed of our retail businesses some time ago, please note that we are now
WHOLESALE ONLY

WE SOLICIT YOUR ENQUIRIES FOR CHEMICAL FOOD

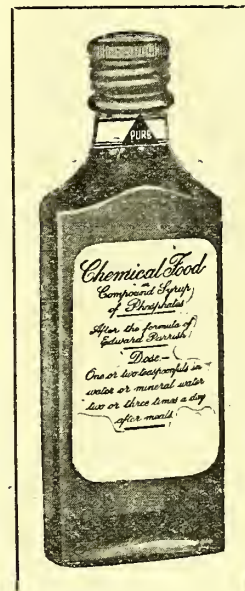


PACKED IN
TWO STYLES

4oz., 8oz. & 16oz. sizes
in W.F. Flats and
decorated cartons

ALSO

3oz., 4oz., 6oz., 8oz.,
12oz. and 16oz. W.F.
Panels with Aluminium
Screw Caps and Script
Labels.



OWN NAME AND ADDRESS ON
ORDERS FOR 3 doz. IF DESIRED

*Special Prices quoted for quantities and in
bulk containers*

MAY, ROBERTS & CO. LTD.
7/13 Clerkenwell Road - London, E.C.1

THE NEW QUICK-SALE DISPLAY CARD A HANDY PACKET AT A HANDY PRICE

NEW PACKAGE

To meet the popular demand. "Eclipse" Blades are now put up in one shilling packets of Three Blades on attractive Display Cards, in addition to packets of 5's & 10's.



NEW PUBLICITY

A new series of striking advertisements is now being prepared for "Eclipse" National Advertising. "Eclipse" sales are steadily increasing because of their outstanding qualities of uniformity, durability and keenness.

"ECLIPSE"
**RAZOR
BLADES**

A BRITISH BLADE WITHOUT A RIVAL.

DISPLAY CARD complete with 10 Packets of 3's at 10/- per card less 33 1/3%	= £0. 6. 8.
ONE BOX of 100 BLADES in Packets of 5's or 10's @ £1. 13. 4. less 33 1/3%	= £1. 2. 3.
5 BOXES each of 100 BLADES in Packets of 5's or 10's @ £1. 13. 4. less 35%	= £1. 1. 8.
Payment : Monthly Account, less 2 1/2%.	

Order from your usual Wholesaler, or direct from the Manufacturers.

JAMES NEILL & CO. (SHEFFIELD) LTD., Crucible Steel Manufacturers, SHEFFIELD.

The usual 'Daily Mail' Front Page Advertisement for **COTY** CREATIONS appears on April 10TH

A
Reproduction
of the
Advertisement.

COTY
WORLD-FAMOUS
CREATIONS

Daily Mail

COTY
PARFUMS
DE LUXE

The
COTY way
to Greater Charm.

is now the chosen way
with millions of attractive
women the world over

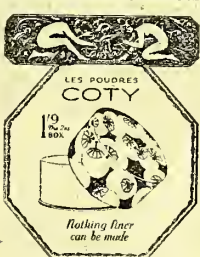
THIS is the 25th anniversary of the year when COTY's famous rose has become today the highest perfume's organization in the world. COTY's Creations are well known because of their high standard of perfection.

With a long knowledge of COTY's great achievement—COTY's Fine Powder is 100% for a long time. The great fact is that in the world no other perfume is so famous with the high quality and purity of the wonderful Creations. With the finest materials available are produced in comparison, and the quality of the contents of each box of COTY's Fine Powder is guaranteed throughout the life of the product, which is not touched by time.

By the use of natural roses, which are picked in the most delicate state, which is picked without touching the petals.

The use of natural roses in which is picked enables every type of woman to find the right shade in her complexion, and we add beauty and grace to her face.

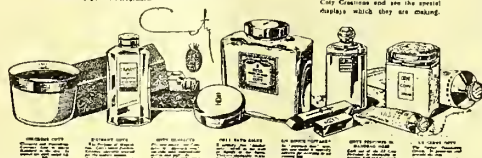
The richness of the perfume, being instantly absorbed in every line of COTY's Fine Powder, remains in the skin and develops no stains and does not produce a stain.



Nothing finer
can be made

COTY
CREATIONS

are made in a variety of sizes and at prices within the reach of every woman's purse. For a visit to the shop where you usually buy your Coty Creations and see the special display which they are making.



Coty Quality is still unrivalled!

DURING Spring and Summer the Coty Advertising in the National Press will be greater than ever before. It will be steady and consistent.

There is sure to be an enormously increased demand among your customers for these famous Creations.

Get ready now! See that you are fully stocked with Coty lines, and display them prominently in your windows and on your counter.

WRITE FOR A SUPPLY OF ATTRACTIVE DISPLAY MATERIAL

It will be sent free on request, and will help you to link up with the extensive Coty Advertising Campaign.

COTY (ENGLAND) LTD., COTY HOUSE,

Telephone : Mayfair 7244-9

3, STRATFORD PLACE, LONDON, W.1

Telegrams : Paricoty, Phone, London.

C.F.H. 48



They will ask for it!

—and the wise chemist is never without it. The terms upon which

Roboleine

is supplied, justify stocking it—there is no risk and the demand is steadily increasing.

A Product of

Oppenheimer, Son & Co., Ltd.

Handforth Laboratories

Clapham Road

London, S.W.9

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OLDFIELD, PATTINSON & CO.

Telegrams :
"OPIUM MANCHESTER."

Telephones :
BLACKFRIARS 4682
(2 lines).

Reliable House for all
Pharmaceutical Preparations
and for Personal Service

Concentrated
Waters.

Concentrated
Infusions.

Essential
Oils.

OPIUM
B.P. Tinct. Aqueous Tinct.

Liquid
Extracts.

Levigated
Ointments.

Syr. Glycero-
phos. Co.

"Silver Churn" Dairy Specialities
MANCHESTER

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MAKE YOUR WINDOWS SELL

USE HOLOPHANE

Look after your windows and they will look after you. Develop their selling-power to the fullest extent during the long Winter months. Install Holophane lighting, which, operating after as well as during business hours, makes of your windows a continuous radiant pageant of merchandise, appealing instantly and emphatically to every passer-by.

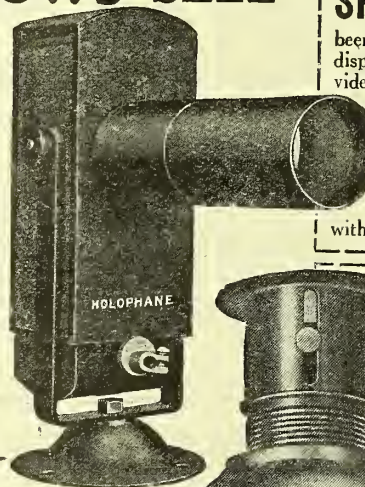
Think of the hundreds of potential customers who pass your shop after closing time. Let your window give them your sales message—persuasively, cogently, successfully. The cost of current used in after-hours' lighting is negligible compared with the results achieved. Holophane methods concentrate the light where required, thus eliminating waste. An automatic set-switch enables lighting to be discontinued at any required hour.

HOLOPHANE

Converts *Light* into *Illumination*.

8 ELVERTON STREET, LONDON, S.W.1.

Telegrams: "Holophane, Sowest, London." Phone: Victoria 8062 (3 lines)



SPOT-O-LITE Projector has been designed to spot light special displays. The intense beam provided can be regulated over a small or large area. **Colour screens** can be provided, thus greatly enhancing its arresting and selling powers. Using 100-150 watt lamps, no window is complete without one.

PRISMATIC REFLECTORS

Nos. 992/4/6

Totally enclosed direct lighting unit, fitted with detachable metal cover, gives a highly concentrating light distribution, and is recommended for light windows and windows of average depth. See other designs in booklet C.D.8.



Fully descriptive booklet sent FREE on application.

ANZORA offer Special Bonus for Window Displays

*Do not hesitate to
take advantage of
this opportunity
—time is limited*



Free bottles of Anzora—one for every dozen ordered—will be sent to all Chemists and Hairdressers who give Anzora Window Displays and place orders for quantities of not less than three dozen bottles during April. This offer is to encourage retailers to co-operate in the special Anzora campaign to push sales. In addition to Anzora's extensive regular advertising one of their usual extra large advertisements will appear on the front page of the "Daily News" on 16th April. Make certain you get YOUR share of the increased sales that will result. Stock up well and make Anzora your month's window feature. A variety of attractive showcards and cut-outs will be gladly sent on request.

**This offer is open for
the month of April only**

Send your order early in the month to be ready for the Easter Holiday demand.

And don't forget to look in the
"DAILY NEWS" of APRIL 16th.

TRADE TERMS

12/- doz. - - Retail at 18/-
20/- " - - " " 30/-

13 bottles to every dozen under special offer.

ANZORA

MASTERS THE HAIR

**AND NOW FOR
THE NORTH !**

**THE NEW EXPERT
ALL-BRITISH
D & P
POSTAL SERVICE**

★ All work received by first and second
posts definitely despatched in time
to reach you first post next morning. ★

SPEEDY, RELIABLE & DEAD ON TIME

REMEMBER LAST SEASON! WE REFUSE
TO TAKE ON MORE CUSTOMERS THAN OUR
CAPACITY PERMITS. WRITE FOR FREE
SHOWCARDS AND SAMPLE OF WORK TO—

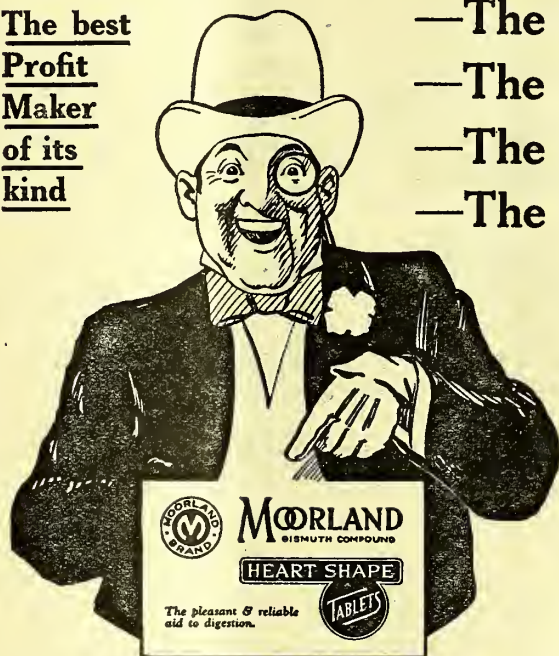
GEORGE BROWN
27A BRAZENNOSE ST.
MANCHESTER

Telephone : CITY 0538

Striking testimony to the value of MOORLANDS

*Not embossed resolutions of Thanks—but
Testimony in the form of Increased Orders*

The best
Profit
Maker
of its
kind



- The PROFITS are big
- The SALES are large
- The DEMAND is regular
- The PRODUCT is right

THERE is no "conjuring" with the quality of this Fine Product. Sales have been built up on Quality and so will they INCREASE. The High Standard of manufacture never varies—we always strictly adhere to the Original Superior Formula. That's why no similar tablet can approach them—and your customers know it.

Follow the example of others and
MAKE MORE MONEY

with the Profitable and Quick Selling

MOORLAND TABLETS

Like scores of other Pharmacists, YOU can make a lot of MONEY out of Moorlands. For not only do they command a Tremendous Sale themselves, but Moorland customers buy other things and become REGULAR and PROFITABLE

CUSTOMERS. If you are not already stocking and featuring this HONEST MONEY-MAKING PROPOSITION, investigate it without delay. Don't hesitate... make up your mind NOW to MAKE MORE MONEY for YOURSELF

Big Profits are YOURS as soon as you put in a display

Order NOW—One doz. 4/6. One Gross 51/-. Retail 7½d. and worth it

Send direct to W. B. CARTWRIGHT LTD. RAWDON NR. LEEDS

SPECIAL *Spring* BONUS

(March 31st—April 7th.)

Reudel Bath Saltrates

P.A.T.A.



WINDOW DISPLAY
TERMS

+

CASH
BONUS

+

GOODS
BONUS

Provided you place your order March 31st—April 7th for Minimum 3-doz. and agree to display Reudel in your window or on your counter for 14 days, the following very attractive Bonus is offered showing, **WHEN BUYING ON BEST TERMS, 65% PROFIT ON YOUR INVESTMENT.**

With each order (Minimum 3 doz. either size or assorted) placed, **YOU WILL RECEIVE :**

1. The usual Window Display Discount (in the case of orders for 12 dozen or more shows you a profit of 33½% on your selling prices).
2. A CASH BONUS of FOUR SHILLINGS on an order for 12 dozen, TWO SHILLINGS on six dozen, and ONE SHILLING on three dozen.
3. A BONUS IN GOODS at the rate of ONE FREE PACKAGE TO EVERY DOZEN you order.

SUPPORTED BY A LARGE SPECIAL SPRING ADVERTISING CAMPAIGN

1/6 size Reudel .. 13/6 doz. 2/6 size Reudel .. 22/6 doz. Carriage Paid 3 doz. Sales Guaranteed.

2½% on 3 doz. lots, 5% on 6 doz. lots. REUDEL : 1 gross either size or assorted 33½ discount off min. retail prices

NOW PACKED IN ONE DOZ. CONTAINERS AND SUPPLIED IN MULTIPLES OF ONE DOZ.

The following standard cases are useful combinations :

1/6 size Reudel at 13/6 doz.						2/6 size Reudel at 22/6 doz.					
Quantity	Regular Display Discount	Cash Bonus	Free Goods Bonus	Nett Cost	PROFIT	Quantity	Regular Display Discount	Cash Bonus	Free Goods Bonus	Nett Cost	PROFIT
3 doz.	2½ per cent.	1/-	3 pkts.	£1 19 6	£1 0 0	3 doz.	2½ per cent.	1/-	3 pkts.	£3 5 10	£1 12 8
6 doz.	5 per cent.	2/-	6 pkts.	3 17 0	2 2 0	6 doz.	5 per cent.	2/-	6 pkts.	6 8 3	3 8 9
12 doz.	33½ per cent. On m.r.p.	4/-	12 pkts.	7 4 0	4 14 0	12 doz.	33½ per cent. On m.r.p.	4/-	12 pkts.	12 0 0	7 14 0

Product	Quantity	Regular Display Discount	Cash Bonus	Free Goods Bonus	Nett Cost	PROFIT
1/6 Reudel	2 doz.	2½ per cent.	1/-	2 pkts.	£ s. d. 2 8 3	£ s. d. 1 4 3
2/6 Reudel	1 doz.			1 pkt.		
1/6 Reudel	4 doz.	5 per cent.	2/-	4 pkts.	4 14 1	2 10 11
2/6 Reudel	2 doz.			2 pkts.		
1/6 Reudel	8 doz.	33½ per cent. On m.r.p.	4/-	8 pkts.	8 16 0	5 14 0
2/6 Reudel	4 doz.			4 pkts.		

This offer closes Monday, April 7th, 1930. Your order may be placed with your usual Wholesaler if preferred, but you will receive your Bonus Goods direct from us ; the Cash Bonus will be rendered as a Credit with your Invoice. Show material will be sent free with all orders.

FASSETT & JOHNSON, LTD., Sole Distributors, 86 Clerkenwell Rd., London, E.C.1

Maw's Page



FORGING THE CHAIN!

Building a business reputation is like forging a chain. Each year a new link is hammered out of opportunity by the efforts of the Directors of the firm and their staff.

The strength of the chain is always in its weakest link, that is why business reputations of long standing are comparatively rare. A mistake in policy, a relaxation of effort, one or two faulty links are forged and the chain snaps.

The chain of reputation which binds the House of Maw to its customers is 123 links long. One hundred and twenty-three years of loyalty and service to the retail pharmacist.

Never a mistake in policy, never a relaxation of effort, never a falling-off of enterprise. Not a single weak link in the long chain.

Think of the effort that has gone to the making of that chain, and remember that this year's link is being forged in exactly the same way as that of last year and the year before; and the year before that.

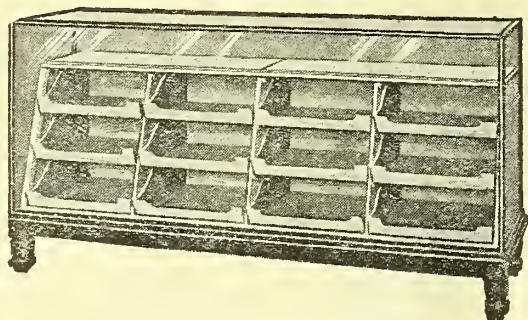
The same sincerity of workmanship, the same enterprise, the same sound policy is being employed by the House of Maw to-day to enable it to produce goods of sterling quality at competitive prices, restricted to the retail pharmacist, as have guided its efforts throughout its history.

It is for this reason that Maw's chain of reputation is strong as well as long, and it is this that leads the discriminating pharmacist of to-day to follow the example of the pharmacists of two preceding generations and to look to the House of Maw as the best and most profitable source of all sundries supplies.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.



RETURN for OUTLAY



THE QUICK SERVER

Ideal for business premises. Mahogany or Oak and Plate Glass. Three rows of light oak trays, opening from back as drawers. Above is a plate-glass shelf accessible by familiar sliding plate-glass doors.

Full illustrated list free on request.

WRITE
CALL
or
PHONE
Clerkenwell
2191

Philip Josephs & Sons Ltd.

90-92 St. John Street, Clerkenwell, E.C.1

PHARMACY FITTERS FOR OVER A CENTURY.

Late of
OLD ST.

On some goods you doubt that you are getting an adequate return for outlay, on some you are certain, on none can you rely so absolutely as on those things that enhance the attractiveness of your Pharmacy. A well-designed fitting is

An Investment

that brings a perpetual return. It attracts custom, gives status and lasts long after it has paid for the initial cost. We shall be pleased to discuss any shop-fitting problem.

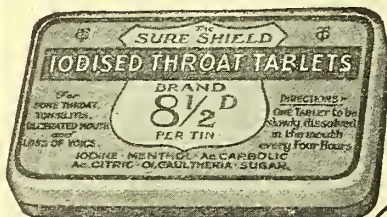
LONDON DEPOT:
1 SWAN STREET,
MINORIES, E.1

Telephone: ROYAL 8111.

THE SURE SHIELD



IODISED THROAT TABLETS



8½d. Tins

5/6 per doz. 63/- per gross

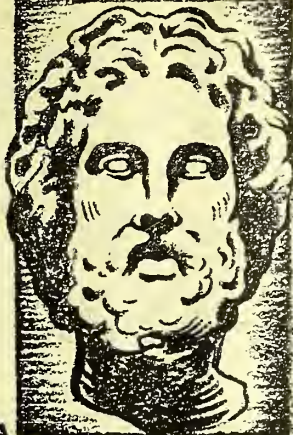
1s. 3d. Tins

9/6 per doz.

108/- per gross

THOS. GUEST & CO., LTD., CARRUTHERS STREET,
ANCOATS, MANCHESTER.

AESCULAPIUS



EVANS

SONS LESCHER & WEBB LIMITED

HEPATEX with IRON

This specially concentrated combination of Liver Extract and Iron has proved most effective in the treatment of **Severe Secondary Anæmias**, Chlorosis, etc. The special form of iron used has been evolved by ourselves and is greatly superior to ordinary iron preparations. It is more readily assimilated, is palatable, and produces no disagreeable after-effects. Standard iron preparations on the other hand have been found to produce an unsatisfactory mixture when added to Hepatex. For these reasons

EVANS' HEPATEX with IRON

is now being prescribed by the specialist and the general practitioner and should be carried by all pharmacists.

EVANS SONS LESCHER & WEBB LTD.
56 HANOVER STREET, LIVERPOOL
DUBLIN—and 50 Bartholomew Close, LONDON, E.C.1

We have minimised production costs by equipping our Works with the most up-to-date machinery.

These Tubes are of the highest quality and finish combined with as low prices as any house in the Trade.



Samples and Quotations on request.

Best Service and Delivery.

ESTABLISHED 1857

BETTS & CO. LTD.

1 WHARF ROAD, CITY ROAD,
LONDON, N.1.

"ON TIME"

Perfect organisation in all departments enables us to estimate with exactness the day on which even the largest order can be dispatched.

The question of delivery is often of particular importance in the case of labels, and we assure manufacturers and retailers alike that—no matter how large or small their order may be, it will be dealt with promptly and efficiently by

ALF. HARRISON & SONS, LTD.
Chemist and Colour Printers, BURLEY RD., LEEDS.

LONDON OFFICE: SENTINEL HOUSE, SOUTHAMPTON ROW, W.C.1
Also at DUBLIN and BELFAST.

COMPLETE SET OF SAMPLES SENT TO THE COLONIES ON RECEIPT OF P.O. 10/6, WHICH IS CREDITED ON A £5 ORDER.

A chemist is known

by the Stock he Sells



The astounding
success of
AYRTON'S ORIGINAL
1930 SPRING TONIC

SULPHUR and YEAST TABLETS

per dozen
4/6
six dozen
@ **4/3**
gross lots
@ **4/-**



WE are splendidly busy getting
away big orders for SULPHUR
and YEAST TABLETS and despatch-
ing the specimen 1-dozen Counter
Displays offered in last week's
Chemist and Druggist, post 4/6
free for -

The brightest spot
in the pharmacy.

AYRTON'S
OF LIVERPOOL, ENG.
PRE-EMINENT
FOR PACKED GOODS.



WM. WARNE & CO. LTD.

29 GRESHAM STREET, E.C. 2.

India Rubber Manufacturers,

Surgical, Chemical, Domestic Articles, Syringes,
Water Beds, etc.



FRED^K. FINK & CO.

10 & 11 MINCING LANE, LONDON, E.C.3.

TEL.: ROYAL 5094.

GUMS, ARABIC and TRAGACANTH as Imported or
Finely Powdered. :: SHELLACS ALL GRADES.

"Superlin" Disinfectant

Wrigley, Paterson & Co., Ltd.,
St. John's Rd., Isleworth, Midd'x.

PHONE: HOUNSLOW 2604

PERRY'S

CHILDREN'S

MADE ONLY BY
PERRY'S POWDERS Ltd.
LEEDS

POWDERS



NUMOL

IS ONE OF THE MOST PROFITABLE LINES A
CHEMIST CAN SELL AND IS ONE OF THE MOST
VALUABLE ARTICLES IN THE WORLD OF PHARMACY.

Prices and advertising material from—

NUMOL, LTD., Newcastle on-Tyne

KORMEOL

THE NEW AND APPROVED REMEDY FOR

RHEUMATISM

Retail Prices 3/-, 5/-, 12/-.

Manufactured for the Proprietors by
THE TEMPLE PHARMACY, 22 Devereux Court, W.C.2

"BIS-U-MINT"

Reg. Trade Mark. Powder, 4½d. and 7½d. ; Ovals, 7½d.

THE PROFITABLE ADVERTISED LINE
WHICH BRINGS REPEAT BUSINESS.

From your Wholesaler or direct.

GOLD SEAL PROPRIETARIES LTD., CROYDON



D. MATTHEWS & SON,
Shop Fitters and Showcases
Manufacturers,
14/16 Manchester St.,
LIVERPOOL.

THE KWIK-SALE SHOWCASE

Suitable for all Businesses.

Plate glass sloping front. Frameless Mirror
sliding doors at back. Polished edge plate
glass shell inside. Size 3 feet long, 14 in.
back to front at bottom. 9 in. back to front
at top. 12 in. high.....£5-10-0

CHEMISTS' FITTINGS

OF EVERY DESCRIPTION.

NEW AND SECONDHAND.

F. MAUND & E. BERG (SHOWCASES) LTD.,
175/9 and 336 OLD STREET, LONDON, E.C.1



SHADEINE FOR TINTING GREY HAIR

This popular article is largely advertised
and stocked by all Wholesale Houses.

Trial size 8d. per doz. 6/-
1/4 size, per doz. 12/-
2/6 size, per doz. 24/-
3/9 size, per doz. 36/-

The SHADEINE CO., 58 Westbourne Grove, London, W.2

BALLOONS

PRINTED with your
ADVERTISEMENT
or BLOCK.

COMBS, PRESENTS LEATHER GOODS, NOVELTIES, ETC.

Deal from the oldest established firm in the Trade:

"STANBERTS," STANBERT HOUSE, (Dept. "P"),
377 KENNINGTON ROAD, S.E.11 Reliance 1762
STOCK "JAZZO," THE MAGIC DANCE FLOOR POLISH.

"DEPENDABLE
TOBACCO
WHOLESALEERS."

MIXED PARCELS A SPECIALITY

Established Fifty Years.

Price Lists mailed on request.

A PROFITABLE SIDE LINE
FOR CHEMISTS.

SINGLETON & COLE, LTD., CANNON ST., BIRMINGHAM

*If you are within our Midland radius we
will collect and deliver your D. and P.
work twice daily from Easter onwards.*

The Swiftsure Photographic Works

SUTTON COLDFIELD Central for everywhere

TREBLES

SHOP FITTERS

SHOP FRONT
BUILDERS

PHARMACY FITTERS for over a Century.

549a Lea Bridge Road, Leyton, London, E.10



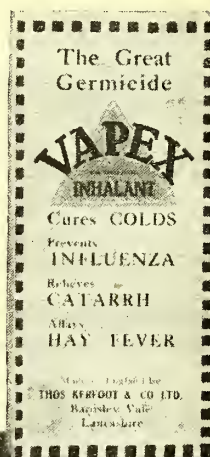
THOS. CHRISTY & CO., 4/12 Old Swan Lane, London, E.C.4

YOUR

Customers
with
Artificial
Dentures
Will Readily
BUY IT.



OUR uncertain climate is responsible for countless colds during the Spring season. There is a natural tendency to take liberties with the weather—and the inevitable result will follow. April showers bring forth more customers for "Vapex."



VAPEX

Cures Colds. Prevents "Flu"

Put a drop on
your handkerchief

2/- 3/-
AND

This counter card takes up little room but will attract much attention. A copy will be included with your next order or sent post free on request.

TO EXPORT BUYERS—All orders and enquiries should be addressed to our Sole Export Agents
Wm. ALFRED JONES Ltd., West India House, Liverpool

THOMAS KERFOOT & CO LTD,
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

D/679

COPYRIGHT

A. S. LLOYD'S EUX-E-SIS.

**For Shaving
without
Soap, Water,
or Brush.**

CAUTION.

The Labels on GENUINE EUXESIS bear
two signatures—A. S. Lloyd, in black
ink, and that of his Widow, Aimée
Lloyd, in RED. Refuse any other.

Sole Manufacturers
and Proprietors:

AIMÉE LLOYD & Co., Ltd.
23 PANTON STREET, HAYMARKET, LONDON, S. W.

N.B.—When ordering from Wholesale Houses write LLOYD'S EUXESIS (WIDOW'S).

The Public are Calling
for

PETAL DUST

*"Wherein the subtle savour of the Flowers
sublimely dwells."*

THE GREAT FLORAL AIR PURIFIER

A Trial will convince you that—

PETAL DUST, when once shown, creates its own demand, and is therefore a valuable adjunct to every "go-ahead" store.

PETAL DUST, when displayed prominently upon your counter, will attract prudent customers by the fragrance of its unique odour, which to-day is of such universal admiration.

Retails in packets at 4d. and 8d. each.

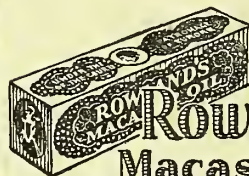
Attractive Advertising matter free on request.

Obtainable through all the usual Wholesale Houses or
from Sole Producers:—

The Rosmarine Manufacturing Co.
LONDON, S.E.1.

For thinning hair

Recommend Rowland's Macassar Oil, the favourite of 137 years. It keeps the hair healthy, and staves off greyness and baldness.



RETAIL
3/6, 7/- & 10/6
P.A.T.A.

**Rowland's
Macassar Oil**

Red for
dark hair
Golden
for fair or
grey hair

A. ROWLAND & SONS, Ltd., 112 Guilford St., London, W.C.1
RM2T

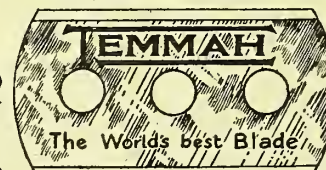
↓ THE **EMMAH** BLADE ↓

YIELDS 86% PROFIT

BONUS 2 DOZEN (and attractive Showcards) on 1 gross.

15/-
Gross
(14 doz.)

Initial
Orders
on sale
or return.



2d.
each
Retail.

Direct or
from all
Whole-
salers.

YOU WILL FIND THEY SELL ON MERIT ALONE.
TEMMAH PRODUCTS LTD.
14/16 LOWER CLAPTON RD., LONDON, E.5

EDWARDS **"Harlene"** LIMITED

THE MOST POPULAR Hair Toilet Preparations

The Popularity of "Harlene" Hair Toilet Preparations continues to increase. Every week by forceful Press Advertising and Recommendation, thousands of new customers are

introduced—customers who buy *regularly* and *consistently*—customers who will prove a Valuable Asset to YOU! Day in, day out, there is a very large sale for:—

"Harlene" for the Hair

"Cremex" Shampoo Powder

"Uzon" Brilliantine

"Astol" for Grey Hair

"Harlene" Wave Setting Lotion

"Harlene" ANTISEPTIC GERMICIDAL LIQUID SHAMPOO

"Harlene" Scalp Ointment

See to it that you always have a stock of these "Best Selling" Preparations on hand. Trade terms are generous and there is a most substantial profit. *Somebody* has to meet the demand in *your* district, so you cannot afford to be without these Popular Lines. "Harlene" Preparations stand unequalled, and have become

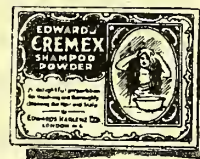
famous through their merit. The selling of them cannot help but have a most beneficial effect on your whole business.

Write for our
**ADVANTAGEOUS
TRADE TERMS**
and order a Stock
NOW!

A Big Advertising Campaign in The National Press is always in operation on behalf of "HARLENE" Preparations, and it behoves YOU to keep a Regular Stock of these Popular Lines to meet the continuous and Regular Demand.



"HARLENE"
For The Hair



"CREMEX"
Shampoo Powder



"UZON"
Brilliantine

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO:

EDWARDS HARLENE LTD.

20, 22, 24 and 26 LAMB'S CONDUIT STREET, LONDON, W.C.1

MERCOLIZED WAX

— : for the Complexion : —

and

STALLAX

— : a Shampoo : —

TWO substantial and well-advertised lines which show a handsome profit to the Retailer, and, moreover, may be stocked fearlessly owing to the Manufacturers' most liberal Sale or Return Guarantee.

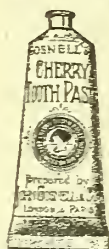
Both are obtainable in two sizes, and their reputation and sterling value assure a steady turnover.

Order through your Wholesaler, or direct from:

DEARBORN (1923) LIMITED
37 GRAY'S INN ROAD, LONDON, W.C.1.

Telephone - - - HOLBORN 9669

GOSNELL'S ORIGINAL Cherry Tooth Paste



IN TUBES
10d. & 1/3

IN POTS
1/6 & 2/-



Red Rose of England Soap

JOHN GOSNELL & CO., LTD.
Perfumers and Fine Soap Makers
211-215, Blackfriars Rd., S.E.1
LONDON
Established 1760

MAKE WESTMINSTER COLOGNE

FOR BATH AND TOILET

YOUR LEADING LINE.

QUALITY SUPERB!

Guaranteed 80% spirit (not Iso Propyl Alcohol).

PRICES POPULAR!!

Retail—4 oz., 2/- ; 8 oz., 3/6. P.A.T.A.

PROFIT 50% NETT ON SALES!!!

Costs—4 oz., 12/- ; 8 oz. 20/- per doz.

Dainty Showcards and Attractive Display Material supplied gratis on request.

Stocked and supplied only by usual WHOLESALERS, including :
 BARNES & CROMPTON, LTD., Preston, Lancs. BROOKS &
 WARBURTON, LTD., London, S.W.1. S. COOK, 76, Radford
 Road, Nottingham. A. B. CURTIS, London, E.2. CHEMISTS'
 SUPPLY CO., Bournemouth. W. DOWSON & CO., London,
 E.C. W. EDWARDS & SONS, London, N.1. H. FERRYMAN,
 Ltd., Southampton. J. M. FAIRBURN, LTD., Blackburn.
 GLAISYER & KEMP, Brighton. OCEAN TRADING CO.,
 Southampton. OSBORNE, GARRETT & CO., LTD., London,
 W.1. SUTTON & CO., London, E.C.

NOTE.—We do not supply direct to Retail Trade, but
 TESTING SAMPLES will be gladly sent Post Free on request.

Made exclusively by

THE ABIETSAN MANUFACTURING CO., LTD.
 Concordia Works, MANAGERS ST., LONDON, E.14

'Phone: East 4150-1.

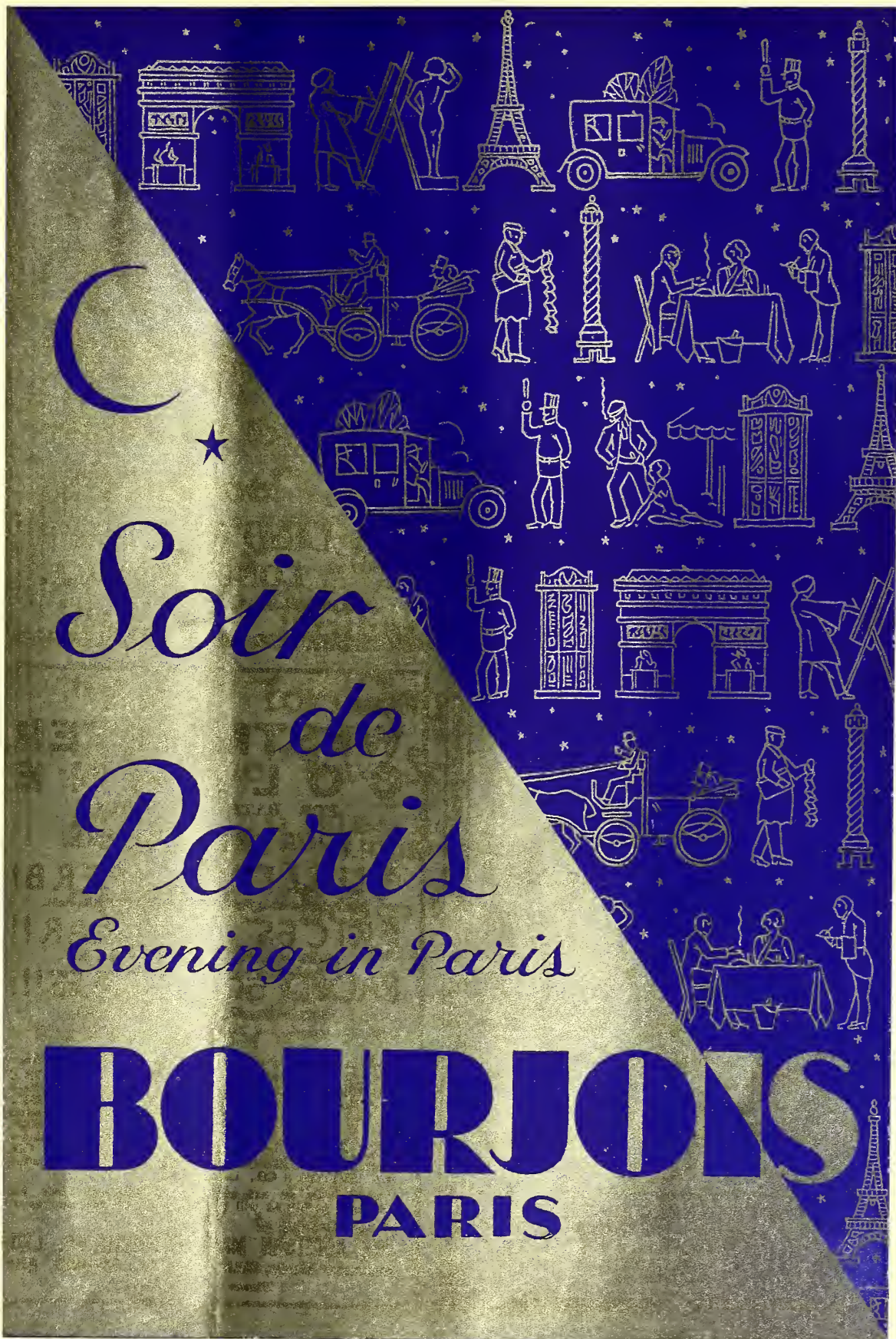


Soir de Paris

Evening in Paris

BOURJONS

PARIS



BOURJOIS

Soir de Paris

Produced by Bourjois in one of those characteristic flashes of French genius. Presented with a unique touch of French art. Original, magnificent. "Soir de Paris," the Perfume that has taken Paris and New York by storm. This success, a trade sensation, now comes to London.

Many of our trade friends have asked us when Bourjois were again going to give the Perfume trade a revival. They remember the enormous success, the great business and the fine profit made, when for the first time in Perfume

history Bourjois placed on the English market a genuine French Perfume and popularised it.

The time has come again. "Soir de Paris" — bewitching, bizarre—presents the opportunity for an electrifying success.

OUR PART—unique and wonderful advertising, as original and sales compelling as the Perfume itself and its display scheme. Advertising in the finest magazines, in the most largely circulating newspapers. **YOUR PART**—counter and window display for "Soir de Paris" with its absorbing colour interest.

¶ Send your order now and do not miss this opportunity of increasing your perfumery trade. A price list appears overleaf.



Announce

Evening in Paris

Soir de Paris
Evening in Paris

Soir de Paris
PARIS - FRANCE

BOURJOIS
PARIS

BOURJOIS

OUR ADVERTISING

This advertising is to all your lady customers. It is modern — like the Perfume. The new “Soir de Paris” campaign is striking, original, full of selling power, and nation wide, appearing in :—

“DAILY MAIL,” “DAILY MIRROR,” “DAILY SKETCH,” “DAILY EXPRESS,”
“EVENING STANDARD,” “SUNDAY PICTORIAL,” “WOMAN’S JOURNAL,”
“GOOD HOUSEKEEPING,” “WOMAN & BEAUTY,” etc., etc.

Then there is a wonderful “Evening in Paris”
Concert Broadcast from New York twice weekly, and
this will be augmented shortly by CONCERTS
from RADIO PARIS.



The enchanting and romantic atmosphere created by the blue and silver colouring and the simple beauty of the original shapes of both flacons and show material, provide a strikingly attractive and arresting window.

PRICE LIST

Cat. No.	Article	Trade Price	Retail Price
1296 bis.	Perfume	30/-	3/9
1297	"	60/-	7/6
1298	"	100/-	12/6
1301	Face Powder	20/-	2/6
1302	Compact in Nickel Case	20/-	2/6
1302R	Refill for above	10/-	1/3
1303	Lip Stick	14/-	1/9
1304	Talcum Powder	20/-	2/6
1305	Bath Dusting Powder	52/-	6/6
1308	Lotion	22/-	2/9

A. BOURJOIS ET CIE, LTD.
4 WATER LANE LONDON, E.C.4
PARIS NEW YORK SYDNEY WELLINGTON

You will soon be asked for these



BATHING CAPS

No. 252.—Assorted Colours, with side decoration,
per doz., 7/6.

No. 602.—Assorted Colours, per doz., 5/-, 9/-, 21/-

No. 73A.—Seashell, with moulded ear piece,
per doz., 20/-

For other models see pages 280 and 281, General Catalogue.

SHAVING BRUSHES

From 3/9 to 300/- per doz.

For complete range see pages 303 and 304, General Catalogue.

TOOTH BRUSHES

No. 67AS.—Bent Celluloid Handles, 6 colours,
assorted shapes, 4 rows, per doz., 4/6 ;
per gross, 48/-

For other varieties see pages 304 to 307, General Catalogue.

SPONGE BAGS

Floral Satin, Assorted Colours.

Size	2	3	4	5	6
Per doz. ..	13/6	16/-	19/-	22/6	25/6

WASHING SQUARES

White Turco, Whipped Borders	11" x 12"	2/9
Assorted Coloured Borders,		
fringed	12" x 12"	3/6
Chenille, Assorted	12" x 12"	6/3
Turknit	from 4/6 to 7/6	per doz.

See also pages 402 and 403, General Catalogue.

WATER WINGS

Each pair in transparent envelope, per doz. 9/9 ;
3 doz. at 9/-

Page numbers refer to our 1930 Catalogue now being distributed.

BUTLER & CRISPE

Patent Medicine Vendors.

Druggists' Sundriesmen.

Toilet and Perfumery Agents.

80 & 82 CLERKENWELL ROAD

LONDON, E.C.1

Cables and Marconigrams :
"ALLUWANT, LONDON."

Telephone :
CLERKENWELL, 5904 (Private Branch Exchange).

Telegraphic Address :

"ALLUWANT, SMITH, LONDON."



"Not two yet."

AGENTS—

Herbert & Sons, Ltd., 6/7 West Smithfield, London, E.C.1.
 206 Goswell Road, London, E.C.1.
 S. Maw, Son, & Sons, Ltd., 7/12 Aldersgate Street, London, E.C.1.
 Sheffras Novelty Co., Fetter House, 54-55 Fetter Lane, London, E.C.4.
 Berry & Warnington, Ltd., 28/37 Byrom Street, Liverpool.
 40 Thomas Street, Manchester.
 The Eastern Scale Co., Ltd., Crown Street, Ipswich.
 Mordue Bros., Ltd., 67 Newgate Street, Newcastle-on-Tyne.
 Preston & Thomas, Ltd., 18 Caroline Street, Cardiff.
 Charles Ross, Ltd., Aizlewood Road Works, Sheffield.
 C. A. Wedderburn & Co., 54 Bernard Street, Southampton.
 W. R. Simpson & Son, Ltd., 27/28 Smitfield Square, Belfast.

FOR SCOTLAND AND EXPORT:

The Gem Automatic Weighing Machine Co., Ltd., 48 New City Road, Glasgow, C.4.

Applications are invited for the Gem Agency Abroad and throughout the Empire.

Let this Gem make money for you!

THE Gem Machine with its beautiful lines enhances the appearance of any Chemist's or Druggist's Shop. It is a genuine money-maker, and works for you without attention.

At the well-known Scottish watering resort Dunoon last summer the drawings from one Gem were over £13 in one week, the total for a single month being over £30.

The above is only one of the many instances brought to our notice of the remarkable earning powers of the Gem.

AND A PROOF OF ITS QUALITY!

After being tested against other machines the Gem has just been adopted by the Corporation of Blackpool.

Can you afford to be without this high class revenue-maker?

The finish is in first-class cellulose in three standard colours, mahogany (grained), light blue and royal blue—with chromium-plated un tarnishable metal Bezel and penny top.

Ask our nearest Agent to demonstrate the Gem. Get particulars of the attractive terms of purchase.

The GEM

Automatic Weighing Machine Co. Ltd.
 46, NEW CITY ROAD, GLASGOW. C.4



for

GALENICALS, DRUGS, SUNDRIES
SURGICAL & HOSPITAL REQUISITES
PROPRIETARY ARTICLES
PHOTOGRAPHIC GOODS

QUALITY
and
SERVICE

*Enquiries for all Pharmaceutical
requirements are invited.*

JAMES WOOLLEY
SONS & Co., Ltd
VICTORIA BRIDGE, MANCHESTER

W.L.A.



Are you showing

W. J. Rendell's "The Friend" Soluble Pessaries.
 The reliable friend of the wife. The wife's friend for auto. set out in
 Be sure and look for the Trade Mark on the labels to
 prevent disappointment. **W. J. RENDELL, London.**

Trade Mark **W. J. Rendell**
 All trading rights reserved

the line with a big following?

There is no other product for the purpose that has the following of such a large and worth-while section of the public as RENDELL'S. And this following is growing every day. When they say: "A box of Rendell's, please," there is nothing else that will satisfy them. They know the reliability and all-round satisfaction for which this product stands. To the chemist who displays Rendell's they offer their permanent custom, not only for Rendell's, but for every line of toilet and medicinal goods.

An Offer
 We are always happy to arrange special window displays, and welcome enquiries for them. Send for details NOW, also for specimen literature.

RENDELL'S

SOLUBLE QUININE PESSARIES.

A P.A.T.A. line that is obtainable through every wholesale house in the country. Enjoys the continued recommendation of a large body of medical practitioners.

W. J. RENDELL LTP., 15, CHADWELL ST., LONDON. E.C.1.

The Blades that make
the British Army
RIGHT ABOUT the FACE

MYATT

DAYMARK BLADES

For double-edge razors.

Five for 1/3
50% PROFIT
ON COST

Sole Manufacturers:

W. J. MYATT & CO. LTD., Birmingham

See our Exhibit—IDEAL HOME EXHIBITION—
STAND No. 523 Main Hall Gallery, OLYMPIA.

HAIR

BURMAN

CLIPPERS

For SURGICAL
and VETERINARY
PURPOSES.

HAIRDRESSERS' CLIPPERS

The British-Made
Hair Clipper.



Dainty Shingling
Clippers for
Ladies' use.

BURMAN & Sons, Ltd., BIRMINGHAM



IF IT
SHAVES
ITS
WANIE

The Blade that SELLS as it SHAVES—
"LIKE GREASED LIGHTNING!"

Obtainable from all leading Wholesalers.

FREE SAMPLE ON REQUEST.
Dept. C.D., WANIE DISTRIBUTING CO.,
89 Aldgate High Street, E.C.3.

Irish Free State Agents:
Messrs. W. A. FREEDMAN & CO., 21, Merchant's Quay, DUBLIN.

Can you do with £50?

If so you are urged to
get as many people
as possible to buy—

Darwin
Safety Razor Blades

THE GREAT NATIONAL
COMPETITION
IS BOOMING

Prizes for the Public

MOTOR CARS, RADIO-
GRAPHOPHONE, GRAMOPHONE,
WIRELESS SET, Etc.:—

FOR DEALERS
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The above three cash prizes will be
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ACT NOW!

COMPETITION CLOSES APRIL 22nd.

Order Blades through your usual Wholesaler.

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GUARANTEED TO STAY ACCURATE
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ANTI-ACID TABLETS
"TOXINICON"

for Rheumatic diseases

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SHAVING SOAP

the only soap with an Antiseptic Vaseline centre.

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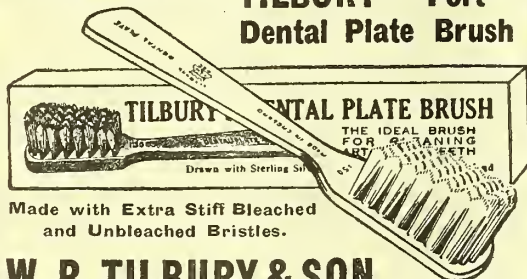
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Made with Extra Stiff Bleached and Unbleached Bristles.

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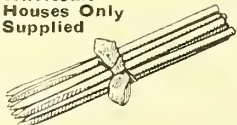
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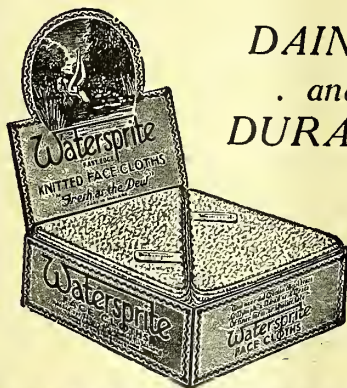
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AND APPEAL INSTANTLY TO
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WHITE, with Coloured Borders.

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G223.	" " " and Cross-stitched	5/9 "

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G224.	Overlocked, Assorted Colours, and Cross-stitched	5/6 doz.
G225.	Shell-stitched " " " "	6/- "

SPECIAL ASSORTMENTS.

G226.	Cartons containing 4 each of above 6 Numbers	10/6 per carton.
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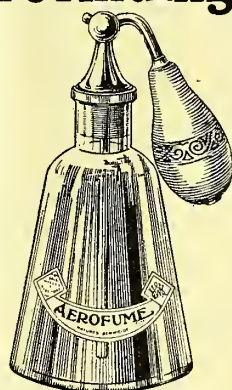
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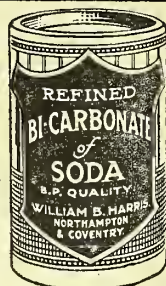
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It will be one of great power and range—a whole page announcement in the *Daily Mail*.

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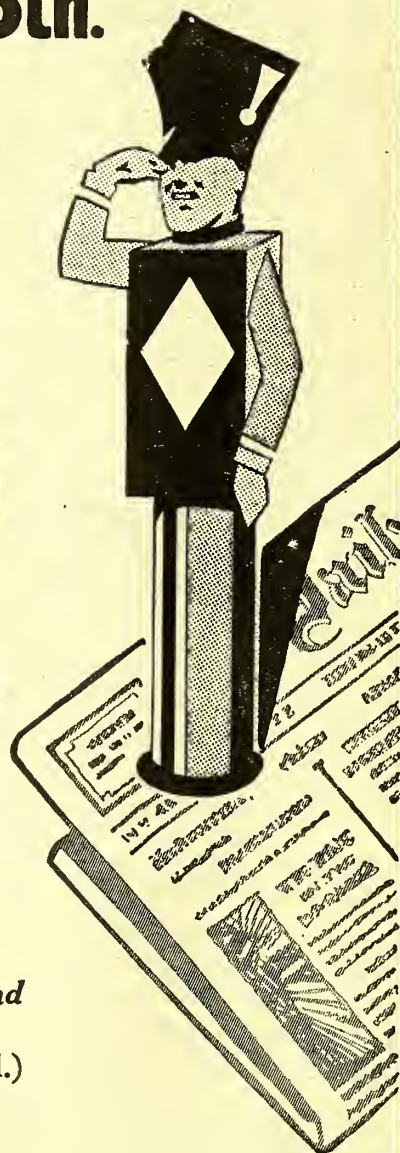
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Pharmacists who have not yet taken up a complete range of the Bob Martin preparations are advised to order the

DISPLAY 18/4 PARCEL

The Contents of this Parcel are:—

2 doz. 6d. Bob Martin's Tasteless Condition Powders.	s. d. s. d.
1 doz. Small Strength ..	1 10 1 10
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1 " Large " ..	1 10 1 10
1 doz. 6d. Distemper Powders	7 6
6d. Worm Powders ..	1 10 1 10
6d. Worm Tablets ..	1 10 1 10
1/- '92 Ointment ..	2 3
6d. Cleanser ..	1 10 1 10
6d. Chalk Blocks ..	2 3
6d. Antiseptic Dog Soap	1 10 1 10

Carriage Paid in the United Kingdom. 18 4

The Retail value of this parcel is £1 7s. 6d.

The display material includes the show-card (illustrated on right), dummy display outers and counter slips

Is there a dog owner in your district who has not seen and read the Early-Spring Advertising Campaign for **BOB MARTIN'S Tasteless CONDITION POWDERS?**

BOB MARTIN advertisements are educational. Dog Owners read them with great interest, and learn, in a convenient way, how to keep their dogs in perfect health by the proper and timely use of a conditioning medicine.

The periodicals in which these advertisements appear have a total sale PER ISSUE of more than eighteen millions (18,000,000)—considerably more than the number of homes in the British Isles. Fifteen national papers (Daily, Sunday, and Weekly), and Thirty Provincial Newspapers carry Bob Martin advertising. No other Dog Medicine in the world is advertised so extensively or so consistently.

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This Showcard, measuring 10 ins. by 8 ins., is a beautiful reproduction in full colours of a painting by Arthur Wardle. It has an irresistible appeal for all dog owners. Every third person who passes your Pharmacy is interested in dogs. Let this Showcard attract them to your windows.

Supplies are now available at your Wholesale House.

BOB MARTIN LTD.

Dog Medicine Manufacturers,
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Watts' Embrocation, or Curb Bottle.
Aconite Powders.
Worm & Condition Powders.
Watts' Red Lotion.
Hair-Restoring Ointment.
Edos, or Tasteless Purging Powder.

HARVEY'S

Great

Protected Prices
(P.A.T.A.)

Remedies for the Horse



HARVEY'S

Koppos Powder.
Parasiticide.
Thrush Specific.
Hoof Ointment.
Skin Specific for Dogs.

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Continuous and Steadily Advertised Goods
FOR DESTROYING RATS AND MICE

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Retail Price (Protected).	Net Wholesale Prices
Virus for Rats and Mice, single tube, 2/-	.. 15/- per doz.
3 tubes, 5/-	
Virus for Mice only - single tube 1/6	.. 9/- " "
3 tubes, 3/-	

Date-expired tubes returned to us postage paid will be exchanged free of charge.

Danysz Virus in Liquid Form

Retail Price.	Wholesale Price
Quart Bottles 6/- each	.. 4/6 each
Pint " 4/6 "	.. 3/9 "

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Discount off Retail Prices 25% Monthly Account, or 33 1/3% cash with order.

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For destroying Blackbeetles, Cockroaches, Crickets, &c.

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" 6d.	" " 1 " 3/8
" 1/-	" " 1 " 7/3
" 2/6	" " 1 " 18/-

Danzo Beetle Powder will not deteriorate by keeping.

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We stock **DECORATED TINS** for:—

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CALDICOT, Nr. CHEPSTOW, Mon.

NEW PATENT

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LOW PRICES QUOTED ON APPLICATION.

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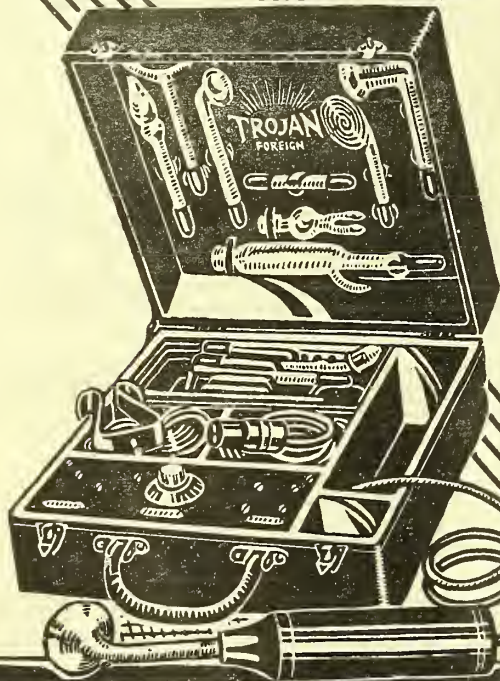
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TROJAN

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Are YOU increasing your profits with the popular Trojan High Frequency Outfits? We have a scheme that will help you to sell 20 sets a week. Ask us about it NOW—the coupon below will bring you full particulars.

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Head Office and Works: WOLVERHAMPTON.
Phone Wolverhampton 1001 'Grams: "Shaw, Wolverhampton,"
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MANCHESTER: 5 Orme Buildings, Parsonage.
Telephone: Blackfriars 1365.

TO JOHN SHAW & SONS WOLVERHAMPTON LTD.
Please send me full particulars and your Scheme
for selling 20 Trojan Outfits a week.

Name

Address

WEED KILLERS

specially packed

for the

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LIQUID. Poisonous

1 to 25, 1 to 50, 1 to 100 strengths
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POWDER. Poisonous & Non-Poisonous

In tins for 12½, 25, 50 and 100 gallons

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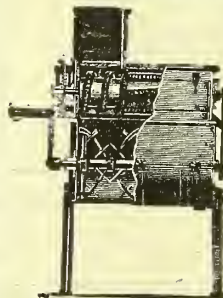
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Photographic Accessories
are so important a part of practically
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Photographic Supplement

to be distributed this year as part of
The Chemist and Druggist
April 26th

will give manufacturers, wholesale, export and
retail dealers the opportunity they require for
attracting special attention to their goods.

The Supplement will be printed on Lilac
Imitation Art Paper in Purple Ink. Full
details as regards advertising space still vacant
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The Publisher - The Chemist and Druggist
42 Cannon Street, London, E.C.4

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54 FOSTERS BUILDINGS,
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Special Discount **40%** and 2½% monthly

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A SPECIALITY

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will SELL by AUCTION at the LONDON MART, No. 155 QUEEN VICTORIA STREET, E.C., on TUESDAY, APRIL 1, at 2.30 (unless previously sold privately), the sole use of the Recipe and all Beneficial Interest, Goodwill, Trade Marks and Rights of the valuable Proprietary Medicine, with nearly a CENTURY'S REPUTATION, known as

"LAMPLOUGH'S PYRETIC SALINE"

This renowned preparation is stocked by leading Wholesale Distributors and Chemists throughout the Empire, in the East, and on the French Riviera.

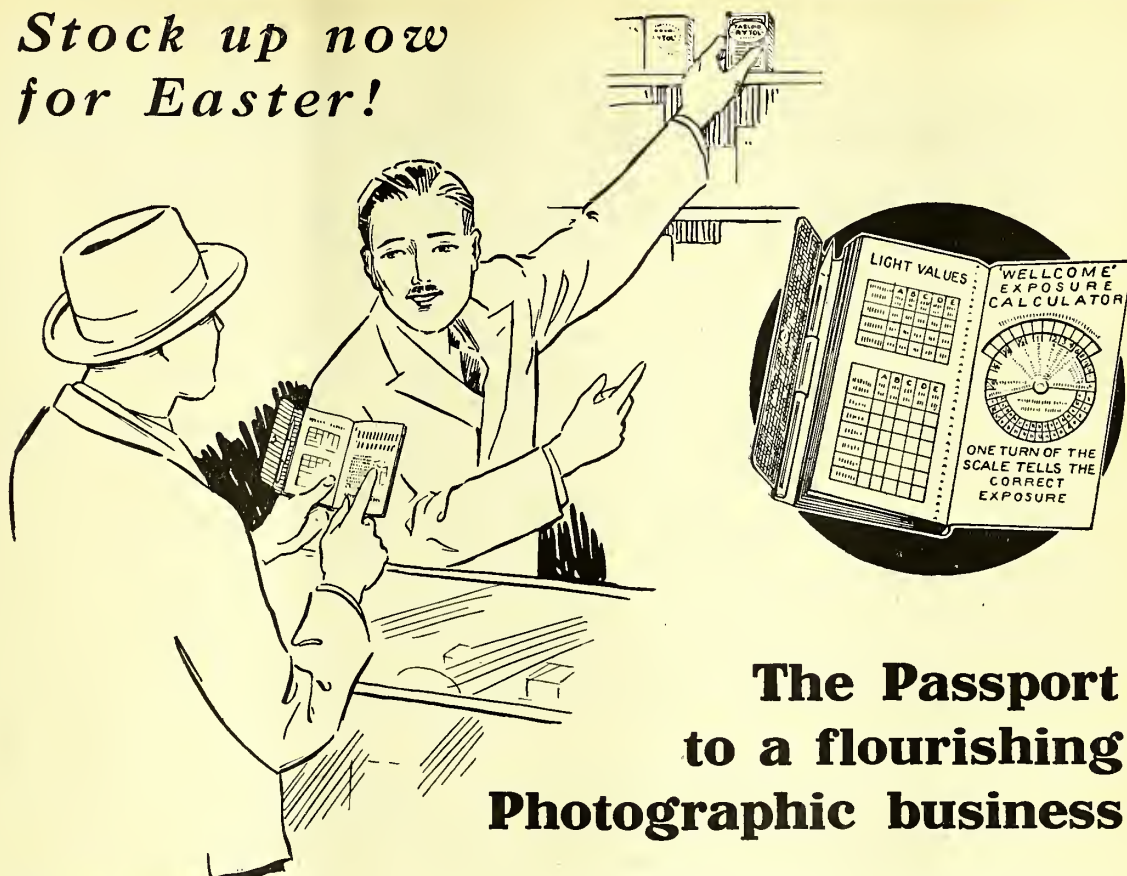
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Handbook and Diary, 1930

*Price in London to the Trade, 16/4 per dozen
(Subject to the usual discount)*



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LIMITED

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HODGKINSONS' COMPOUND SYRUP OF FIGS

Hodgkinsons' Syrup of Figs is sold in bulk, and is also supplied packed Ready for Retail in a variety of attractive styles.

Write for sample and quotation.

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A WEEKLY JOURNAL OF PHARMACY AND OF THE CHEMICAL AND DRUG TRADES

THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the Overseas Dominions.

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TWENTY SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist Diary*. Subscriptions may begin with the first issue of any month. Single copies, 9d., post free; *Diary*, 10s., post free. Postal Orders and Cheques should be crossed "Bank of Liverpool and Martins, Ltd."

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Head Office: 42 CANNON STREET, LONDON, E.C.4
(Telegrams: "Chemicus, Cannon, London.") Telephone: Central 3617.)

Branch Offices: 4 Cannon Street, Manchester. (Tel.: City 0052.)
54 Foster's Bldgs., High St., Sheffield. (Tel.: 22458.)
19 Waterloo Street, Glasgow. (Tel.: Central 2329.)
Melbourne and Sydney, Australia.

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Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Tuesday, April 1

Glasgow Pharmacy Club, Athenæum Restaurant, 179 Buchanan Street, at 7.30 p.m. Whist and tea. Tickets, 3s. each, from Mrs. Downie, Minard, Lochend Drive, Bearsden.

Liverpool School of Pharmacy, Old Students' Association, Gainsborough Café, Dale Street, at 8 p.m. until 1 a.m. Dance. Tickets, 3s. 6d. each inclusive, from Mr. E. Witter, 127 Albert Road, Widnes.

Wednesday, April 2

Liverpool Chemists' Association and Branch of the Pharmaceutical Society. Visit to the biological institute of Evans Sons Lescher & Webb, Ltd., Runcorn.

Western Pharmacists' Association, Slaters' Restaurant, 192 Oxford Street, London, W., at 8.30 p.m. Dr. A. T. Pitts, D.S.O., L.D.S., on "The Place of Drugs in Dental Practice."

Thursday, April 3

Manchester Pharmaceutical Association. Annual general meeting. Election of Council.

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Price-Protection Inquiry

The Lord Chancellor and the President of the Board of Trade have appointed a Committee to consider present trade practices which result in withholding from particular retail traders supplies of goods in which they wish to deal or which prevent the resale of such supplies except upon conditions imposed by the suppliers, and to report whether in their opinion all or any of such practices are detrimental to the public interest, and, if so, what alterations in the existing law are necessary to prevent the continuance of such practices. The membership of the Committee is as follows:—Mr. Wilfred A. Greene, K.C. (chairman), Mr. Alexander Johnston, Professor D. H. Macgregor, Mr. W. E. Mortimer, Mr. J. E. Singleton, K.C., and Mr. A. G. Walkden, M.P. The secretary to the Committee, to whom all correspondence should be addressed, is Mr. C. K. Hobson, M.B.E., Board of Trade, Great George Street, London, S.W.1.

Contracts

The following tenders have been accepted by the bodies named:—

Bristol Corporation.—Ferris & Co., Ltd., drugs and dressings.

Dartford Guardians.—Boots, Ltd., drugs and sundries.
Eton Guardians.—Walden & Drewett, chemists, Slough, drugs, etc.

Hemel Hempstead Guardians.—Mr. A. E. Grimwade, chemist and druggist, dressings.

Isle of Thanet Guardians.—Mr. V. J. Woolls, chemist and druggist, Mr. J. H. Skitt, chemist and druggist, Mr. E. Siminon, chemist and druggist, and D. T. Evans, Ltd., drugs, etc.

Lewes Guardians.—B. Pratt & Co., Ltd., dressings.

Meriden Board of Guardians.—Mr. C. G. Crooke, chemist and druggist, Coleshill, drugs.

Tadcaster Guardians.—Mr. J. H. Hull, chemist and druggist, drugs.

War Office.—Burgoyne, Burbidges & Co., Ltd., drugs, etc.

Worcester Guardians.—Mr. H. J. Aubrey, chemist and druggist; Mr. W. H. Taylor, chemist and druggist; George & Welch, chemists; drugs, etc.

Inquests

At Chelmsford, Dr. Richard H. Vercoe, medical officer of health, died from taking or inhaling chloroform while of unsound mind.

At Tiverton, recently, Dr. P. D. Mottet, house surgeon at a local hospital, died from an overdose of cocaine hydrochloride taken in mistake for chloral hydrate. A verdict of "Death from misadventure" was recorded.

Birmingham

Counterfeit coins are in circulation locally.

Mr. W. A. S. Calder (Chance & Hunt, Ltd.) has sufficiently recovered from his recent motor-car accident to be out again.

W. Canning & Co., Ltd., have given £1,000 to the Hospital Centre Fund and a similar amount to their employees' Benevolent Fund.

An article in the "Birmingham Daily Mail" of March 18 warns women against hair tinting, but raises no objection to the use of camomile, henna, sage or green tea.

Manchester

Mr. J. H. Franklin (James Woolley, Sons & Co., Ltd.) has received many congratulations on his election as the first chairman of the wholesale chemists' group of the new Wholesale Drug Trade Association, an office which

his many services as president of the Manchester Pharmaceutical Association and in other capacities render very appropriate.

The monthly whist drive organised by the junior section of the local branch of the Pharmaceutical Society was held at the Clydesdale Club on March 19, when about fifty were present. The following were the prize-winners:—*Ladies*, (1) Miss D. Clynes, (2) Miss Diggle, (3) Miss Lewis; *Gentlemen*, (1) Mr. John Cleworth, (2) Mr. David Lewis, (3) Mr. H. E. Watson. Mrs. Brindle presented the prizes, which were kindly given by Mrs. Brindle, Mrs. Wyatt, Mr. and Mrs. Walters, and Mr. and Mrs. Collins. Mr. Thorpe proposed a hearty vote of thanks to those patrons who had given the prizes and to Mrs. Brindle for presenting them.

Miscellaneous

POISON-LICENCE APPLICATION.—Mr. R. J. Turnbull, seed merchant, North Road, Durham, has applied for a licence to sell agricultural and horticultural poisons.

THEFT OF CAMERAS.—The premises of Mr. A. G. Lock, chemist and druggist, Grimsby, have been entered by burglars on two occasions lately. A number of cameras and a quantity of films have been stolen.

DEFICIENT ZINC OINTMENT.—At Bristol Police Court, on March 21, Francis C. Taylor, Old Market Street, was fined 20s. for having sold zinc ointment which was found to contain only 11.6 per cent. of zinc oxide.

WINE-LICENCE APPLICATIONS.—The following chemists have been granted wine off-licences at the recent local Brewster Sessions: Mr. J. R. Gatherum, Coventry; Hendries, Ltd., Dagenham, Romford; J. J. Pickering, Slough.

ROYAL INSTITUTION.—At a general meeting of members of the Royal Institution, held on March 3, Dr. F. H. Carr, Mr. R. E. Clay, Mr. H. M. Dunkerley, Mr. H. R. Fry, Professor F. L. Hopwood, Mr. A. W. Isenthal, Mr. N. C. Neill, Lady Saltoun and Miss E. Watt were elected members.

HEALTH AND HAPPINESS EXHIBITION.—An exhibition in aid of the voluntary hospitals, organised by "The Daily Chronicle" in co-operation with the British Charities Association, will be held at Olympia, London, W.14, on July 16-26 inclusive. The address of the exhibition offices is Drury House, Russell Street, W.C.2.

FORGED PRESCRIPTIONS.—At the Central Criminal Court, London, on March 26, Julian Pinder (39), secretary, was sentenced to twelve months' imprisonment in the second division for obtaining morphine by means of forged prescriptions (*C. & D.*, March 22, p. 342). It was stated that the accused admitted having thus obtained 226 bottles of a morphine mixture.

PUBLICITY SCHEME.—With a view to bringing Devonport into prominence as a shopping centre by advertising it throughout the West of England, the local mercantile association has adopted a scheme under which all the firms in the town are being asked to share in providing the necessary funds.

IN THE COURTS.—At Cambridge, on March 18, Maurice Klein (19), Woodberry Grove, London, N., was sentenced to three months' imprisonment for stealing perfume, value £4 15s., the property of Turner & Sons, chemists, Trinity Street. The firm's manager, Mr. William Arthur Palmer, chemist and druggist, gave evidence.—In Lambeth County Court, on March 21, Colgate Palmolive Peet, Ltd., Ranelagh Road, S.W.1, sought to enforce the payment of a judgment debt of £23 4s. 6d., against Hyman Jacob Denton, Acre Lane, Brixton, S.W. The plaintiffs' representative said that the defendant was the managing director of the Arcade (Brixton) Pharmacy, Ltd., and paid £8 a week rent. He employed seven assistants. The defendant did not appear. An order for payment at £5 a month, with costs, was made.—At Preston, on March 21, Edward McGuire, Walton-le-Dale, was fined £5, with £2 12s. costs, for practising dentistry without being registered.—At Clerkenwell Police Court, London, on March 25, Onno E. Victor, Upper Street, N.1, was ordered to pay £5 costs on a similar charge.

Scottish News

Brevities

Mr. Angus McDonald, chemist and druggist, Dunfermline, has been made a justice of the peace for the county of Fife.

Mr. W. D. Bell has been appointed successor to Mr. J. W. Johnson, representative of Scott and Turner, Ltd., Newcastle-upon-Tyne, for some thirty years.

To facilitate business for customers Pinkerton, Gibson & Co., Ltd., Edinburgh, have installed an additional telephone line. The numbers now are: 23175, 23176, 23177.

On the occasion of their return from South Africa, after an extended tour, Mr. and Mrs. Thomas Harley were entertained to dinner by the staff of the "Rodine" works. Mr. McIntosh, works manager, on behalf of the staff, extended a warm welcome home to Mr. and Mrs. Harley. Mr. Harley thanked Mr. McIntosh for the welcome.

Dr. John Webster Lowther Spence, radiologist, died at Edinburgh on March 15. He was associated with Dr. Röntgen in his early investigation of x-rays, and was one of the founders of the Radiological Department of Edinburgh Infirmary. In 1916 Dr. Spence lost his right arm, and only recently he underwent an operation on his left hand. The Carnegie Hero Fund Trustees awarded him an annuity for his service to humanity.

Fairy Dyes, Ltd., held their tenth annual dinner, under the presidency of Mr. Fred Shoesmith, at the Grosvenor Hotel recently. Covers were laid for 300 members of the staff and business friends. Mr. Harold Shoesmith proposed the toast of "Our Guests," to which Mr. J. Russell Chapman responded. Mr. John Train, M.P. for Cathcart, proposed the toast of "British Industries and Fairy Dyes, Ltd.," to which Mr. Fred Shoesmith replied.

Irish News

Brevities

Mr. F. Kiernan, Ph.C., has opened a medical hall in Borris.

Mr. Benjamin Logan, Ph.C., has acquired the business of the late Mr. Roden Johnston, Ph.C., Downpatrick.

There were three applicants for the position of compounder to Ballymena Union, rendered vacant by the death of Mr. James Acheson. Mr. J. A. McConnell was appointed by eighteen votes. In his Licence examination Mr. McConnell secured honours and third place in Ireland.

At co. Down Assizes, on March 11, Frederick W. Curtis, Belfast, pleaded "Not guilty" to having, by falsely pretending to Dr. Richard McCandless, of Lisburn, that he was a seller of dispensary bottles and requisites, obtained a cheque for £6 15s.; and in a second case the prisoner pleaded "Not guilty" to having by similar false pretences obtained the sum of £3 4s. from Percy R. W. Shinner, Ph.C., Antrim Road, Belfast. After the case had commenced, the judge adjourned it to the next Assizes.

Belfast

Mr. P. J. Dundee, son of Mr. James Dundee, Ph.C., Belfast, has broken the 100 yards back stroke swimming record.

Mr. George Johnston, Ph.C., Ardenlee Avenue, Belfast, was a winner in the Irish terrier class at the Dublin Kennel Club Show with his dog Ben Knockdale.

At the annual meeting of the Belfast Wholesale Merchants and Manufacturers' Association on March 20 Mr. Horace R. Haslett (J. & J. Haslett, Ltd.) was appointed senior vice-president. Representatives of the drug trade appointed on the general committee were Sir Thomas McMullan (Thomas McMullan & Co., Ltd.), Messrs. A. M. Gamble (Shaw & Jamieson, Ltd.), Fred Storey (Fred Storey, Ltd.), and George Wilson, J.P. (Jordan, Wilson & Alexander).

Sporting Events

ON March 5 the Ipswich Chemists' men's team met a team representing the Martlesham Division of the Royal Air Force at home, and were beaten after an exciting game by three goals to one. *Chemists' Team:* E. Hammond, F. W. Wiggins, J. Murphy, S. Medley, D. Banks, H. Whitman, A. Prentice, D. Deck, A. Mason, S. Chaplin, W. Wray.

THE B.D.H. Sports Association football team, playing at home in the London Commercial League, beat Babcock & Wilcox by four goals to three. In the North Middlesex League, at Edgware, the B.D.H. beat Carreras by three goals to one. In a netball match against Gibaud & Higley the B.D.H. girls were successful, the score being fifteen goals to three. *Rambling.*—Delightful weather favoured the opening ramble of the season, when twenty-six members of the club explored Farthing Down, Farleigh and Riddlesdown area.

THE annual general meeting of the London Chemists' Golfing Society took place on March 5. The following officers were appointed:—*President:* W. Duncan. *Vice-Presidents:* Messrs. A. Boyes, H. W. Bartlett, M. W. Carmichael, J. Jones, T. E. Lescher, Dr. R. Hanbury, H. Ingram-Royle, T. W. D. Turner, W. B. Trick, E. Sanger, H. Skinner, W. J. Pinchen, C. P. Winchester, W. P. Want. *Captain:* W. E. Cane. *Vice-Captain:* P. O. Royle. *Secretary and Treasurer:* D. J. Parry. *Auditors:* F. A. Bell, W. M. Ballantyne. *Committee:* Messrs. W. S. Boyack, M. W. Carmichael, G. F. Deeth, J. Forbes, J. Jones, W. Main, J. W. Quibell, D. M. Rees and T. W. D. Turner.

Wills

MR. ROBERT CUBEY, of 21 Bowland Terrace, Blaydon, and formerly chemist and druggist, 17 Church Street, who died on April 5 last, aged sixty-seven, left estate of the gross value of £8,099 6s. 8d., with net personalty £5,553 16s. 10d.

MR. ARTHUR LLEWELYN STEVENSON, of "Croft Bank," Grange Park, Maghull, Lancs., and formerly of 8 Longmoor Lane, Aintree, Liverpool, chemist and druggist, who died on December 24 last, aged fifty-four, left estate of the gross value of £10,166 4s. 7d., with net personalty £8,473 4s. 10d.

MR. KESHAV BALKRISHNA MAVLANKAR, of 492 Merton Road, Wandsworth, Surrey, and Trout Road, Yiewsley, proprietor of the British Aromatic Chemical Works, and hon. secretary of the Indian Social Club, died on February 1 last, aged fifty-eight years, leaving property of the gross value of £41,922 1s. 8d., with net personalty nil. The will dated May 3 last is proved by the widow, Mrs. Tarabai Mavlankar. He leaves his business between his wife and daughters.

MR. GEORGE SHILLCOCK, of Northcliffe Bungalow, St. Peters, Broadstairs, Kent, chemist and druggist, a partner in Shillcock & Son, of High Street, Bromley, Kent, who died on August 14 last, aged seventy-six years, left estate of the gross value of £1,573 6s., with net personalty £317 3s. 7d. Probate of his will has been granted to his widow, Mrs. Louisa Shillcock, of Northcliffe Bungalow, and his brother Sidney Shillcock, of 122 High Street, Bromley, Kent.

MR. HENRY RICHARD ARNOLD, of Landaras, Hatch End, Middlesex, governing director of Burgoyne, Burdidge & Co., Ltd., left estate of the gross value of £124,591, with net personalty £116,411. After making certain bequests and establishing a number of trusts, he left the ultimate residue as to: Three-eighths to King Edward's Hospital Fund for London; two-eighths to the Benevolent Fund of the Pharmaceutical Society of Great Britain; two-eighths to the Royal National Lifeboat Institution; and one-eighth to St. Mary's Convalescent Home for Children at Broadstairs.

Westminster Wisdom

Notes on Parliamentary Matters

POOR-LAW PHARMACISTS

Replying to questions put by Sir W. Greaves-Lord and Sir G. Hurst on March 20, and by Mr. Butler on March 21, regarding the position of pharmacists under the Poor Law Draft Regulation, the Minister of Health (Mr. Greenwood) stated that he had given this matter careful consideration, but, as he had indicated in replies to previous questions, he was averse from the extension of central control which is implicit in the suggestions made.

DANGEROUS DRUGS

Mr. Mander asked the Home Secretary on March 12 if it was his intention to press on the Council of the League of Nations that the black list of individuals and firms known to be amongst the chief offenders in the illicit drug trade and mentioned in the draft report to the Council of the Opium Advisory Committee shall be made public.

Mr. Clynes: The report of the Committee will, no doubt, in accordance with the usual practice, be published, and the names of the firms and persons referred to will be made public in that way.

Business Changes

MR. GEORGE MCCOURT, chemist and druggist, has commenced business at Ferguslie, Paisley.

MR. C. M. WARD, chemist and druggist, has taken over the pharmacy at 74 High Street, Erith.

MR. HARRY PARSONS, chemist and druggist, has opened a pharmacy at Talbot Parade, Street Lane, Leeds.

MR. JOSEPH BLACK, chemist and druggist, has taken over the business of Mr. Thomas McKinstery, 13 Well-meadow, Paisley.

THE Cardiff branch of Francis Newbery & Sons, Ltd., has been removed from 13 and 14 Crichton Place to Tredegar House, Hope Street.

THE business of Mr. A. Barlow, chemist and druggist, Caen Street, Braunton, has been taken over by Mr. F. E. Battershill, chemist and druggist, who will conduct it as a branch.

BURKETT, SHARP & Co., LTD., 8 Harp Lane, London, E.C.3, have been appointed agents for Paul Hopfe, exporter and importer of drugs and chemicals (established 1863), 48-50 Deichstrasse, Hamburg.

PAINES & REID, produce brokers, Market Buildings, 29 Mincing Lane, London, E.C.3, have admitted into partnership Mr. Charles Howe, who has been associated with them for many years.

THE London showrooms of the Lamson Paragon Supply Co., Ltd., at 132 Cheapside, E.C.2, will shortly be closed, new and larger showrooms having been opened at Queen's House, Kingsway, W.C.2.

FRENCH & PLUCKNETT, produce brokers, 7 Mincing Lane, have removed their offices and sale room to Market Buildings, 29 Mincing Lane, London, E.C.3. Their telephone numbers remain unchanged.

MR. J. W. W. AGNEW, chemist and druggist, who for many years has been a London representative, has retired from "the road" and is now carrying on the Rialto Pharmacy, Ltd., 23 Church Road, Upper Norwood, S.E.19, of which he is managing director.

DETAILS of the rapidly increasing vogue of Goodall, Backhouse & Co.'s Yorkshire Relish in the United States are given in "The Yorkshire Evening News" of March 21.

Legal Reports

Debt Case.—In Southwark County Court, London, on March 20, before Judge Moore, Baker, Son & Co., show-card manufacturers, Aldermanbury Postern, E.C., sought to enforce the payment of a judgment debt against D. J. Phillips, manufacturing chemist, 106 Union Street, Southwark, S.E. Judgment was obtained in the King's Bench Division on December 29 last for £37 16s., including costs, for goods sold and delivered. In answer to questions put by Mr. Eddic Philcox, for the plaintiffs, the defendant said he managed his wife's business, which was carried on in the name of the Philli-Morano Co. His wife did not work in the business, but his son did, and there was one other assistant, and a traveller. The traveller received £2 10s. a week and his expenses and commission, and he had thought about doing the travelling himself, but he had no time, as he could not leave the business. He received £3 a week, out of which he paid his son. His wife did nothing in the business, and paid the rent. He declared that things were so bad he could not make an offer to pay at present. An order for the payment of £3 a month was made.

Dangerous Drugs Acts.—At Liverpool Police Court, on March 21, Mr. Norman Hector Davies, chemist and druggist, manager of the Mill Street shop of Toxteth Pharmacy, Ltd., was summoned for not having kept a register of "dangerous" drugs so as to be at all times available for inspection. Mr. H. Glyn-Jones, barrister, who appeared for the defendant, pleaded "Not guilty." Chief Inspector Burgess said he called at the shop with the Home Office inspector on February 13. An assistant told him that Mr. Davies had gone to lunch, and when asked to produce the "dangerous" drugs register said it was locked in the "dangerous" drugs cupboard and the manager was the only person authorised to hold a key to it. At 3 p.m. witness paid a second visit, and the register was produced by the manager, who said he locked it up for safety. Cross-examined by Mr. Glyn-Jones, witness agreed that a qualified pharmacist was not in charge of the shop on his first visit, and that no one but a qualified pharmacist was entitled to hold the key. Mr. Glyn-Jones submitted that the phrase "at all times" must be construed to read "all reasonable times." If not, it would mean that every chemist closing for the lunch hour and for the night was guilty of a breach of the Regulations. Secondly, if there was an offence it was a ludicrous one. Thirdly, he submitted that the defendant was not the person keeping open shop within the meaning of the Regulations. The person authorised was the company who were the owners of the business. Any person convicted of an offence against the Regulations, however trivial, ran the risk that the Home Office might deprive him of his possession of "dangerous" drugs. If the defendant was not the person so authorised he would not run that risk. Mr. J. R. Bishop, for the police, maintained that both the employer and his manager were duly authorised persons keeping open shop, and therefore either one or both could be charged. The stipendiary magistrate deferred his decision.—At the same court, Mr. Isaac Alexander, chemist and druggist, London Road, who was summoned for not having a "dangerous" drugs cupboard locked, was fined £3. Mr. Alexander explained that the lock was faulty and he had inadvertently left the cupboard unlocked.

Pharmacy Acts Prosecution.—In Bloomsbury County Court, London, on March 20, the Pharmaceutical Society of Great Britain sued Arcade (Brixton) Pharmacy, Ltd., Brixton, S.W., to recover the sum of £5 from the defendants, the plaintiffs alleging that between January 20 and February 3, 1930, the defendants used and exhibited the name or title of chemist at their premises at 35 Market Row, Brixton, contrary to the Pharmacy Act, 1868, Secs. 1 and 15, and the Poisons and Pharmacy Act, 1908, Sec. 3 (4), the defendants not having complied with the requirements of the last-named subsection regarding the registration of a superintendent. Mr. H. Glyn-Jones, barrister, appeared for the Society, and Mr. Mannington Buller, barrister, for the defendants. In opening the case, Mr. Glyn-Jones said that a similar case against the same defendants had recently been before his honour, and this summons was in connection with the same sign, which

was outside the defendants' shop. On the last occasion a penalty of £5 was inflicted for the defendants using the word "chemists"; and now they had added an apostrophe after the "chemists." He produced the photographs taken of the sign. Arthur F. Stevens, photographer, gave evidence of taking the photographs. Mr. A. J. Plowright, Ph.C., 17 Bloomsbury Square, W.C.1, said that the defendants had not registered with the Society the name of any qualified superintendent. Hyman Jacob Denton, managing director of the defendant company, gave evidence to the effect that in the business they were carrying on they did not keep, retail, or dispense any poisons. In cross-examination he agreed that the photographs produced were of the shop in question. He agreed they called themselves a pharmacy, but that was because they sold goods that were usually stocked in a "pharmacy shop." The word "chemists," which appeared on the sign outside the shop was in much larger letters so as to emphasise the type of articles sold in the shop.

CASE FOR THE DEFENCE

Mr. Buller, addressing the Court, submitted that his honour had to decide whether the defendants represented this to be a chemist's or not, and whether the defendants had infringed within any degree the terms of the Statute. He was relying upon Section 1 of the Pharmacy Act, 1868. In this case the sign read: "Chemist's articles obtainable at cut prices." Carrying the matter to a logical conclusion, they had not used the word "chemists" in accordance with what was set out in the Pharmacy Act. Judge Hill-Kelly: The question is whether the defendants are using the word "chemists" as a title. Mr. Buller: I say it is only being used to specify the articles for sale. They are only representing to sell chemists' articles. Judge Hill-Kelly: It all comes to the same thing. The real thing here is that the word "chemists" is printed in such a way as to draw the attention of the public to the word, and leave all the other words unnoticed, which the person does not stop to read. It is the deliberate intention to say that the shop is a chemist's shop. Mr. Buller said he did not think this was quite the case. He said it was a penal Statute, and putting aside the question of whether they represented to be, the question was whether they used or assumed the title of chemists or druggists, or chemist and druggists. Judge Hill-Kelly: Supposing you had a sign, and on it you had the words: "I am not," $\frac{1}{4}$ -inch long, and "chemist" 2-ft. long, would not you say that was an infringement of the Statute? Mr. Buller: The "chemist" there is used as a description, it is merely a description of the articles sold. Continuing, Mr. Buller said that if a man were a manufacturer of chemist's articles and kept an open shop for selling things, and he sent round a catalogue saying that he is selling chemists' articles, could it be said that he was committing a breach of the Statute? In this case, here was a firm which used the title merely to describe what articles they sold, although he agreed that the sign could have been better. He submitted that it was not a case in which the defendants should be ordered to pay the penalty imposed by that old Statute. Section 3 (4) (a) of the 1908 Act could not be applied to the defendants, as they did not keep, retail, or dispense poisons. Judge Hill-Kelly: But there is no penalty attached to the section, it is merely an issue. Mr. Glyn-Jones said that that section really applied to Section 15 of the Pharmacy Act. Judge Hill-Kelly: I see that the last paragraph of Section 15 of the 1868 Act is applied to this section. Mr. Buller went on to say that in the particulars of claim it was alleged that they had failed to comply with Section 3 (4) in not having a duly registered superintendent, but he would say that the shop was not open to sell poisons, etc., and, therefore, as they did not sell such articles, they did not require a superintendent. He would submit that they were entitled to succeed in this case, as his friend had not sought to disprove the assertion that the defendants did not keep, retail, or dispense poisons. It was the only evidence before the Court. As it was a penal Statute, he did press that his honour should construe it very strictly, as the words were used in both sections. The whole question was as to whether they had used the title, not as to whether they had represented. He understood

that the plaintiffs had succeeded in cases brought against persons using the words "photographic chemists," but in that case it was a title, not just a description of the wares.

REPLY FOR THE PROSECUTION

His honour then asked Mr. Glyn-Jones how he overcame the London Provincial case, where a penalty could not be recovered from a corporate company. Mr. Glyn-Jones said that Section 3 (4) of the Poisons and Pharmacy Act, 1908, overcame that point. Before that section was added a corporate body could not be sued, but their servants could, and therefore the attitude adopted was that a limited company said, "You can go on bringing proceedings against me, and my servants will pay"; and, of course, as time went on the servants were not in a position to pay, and this section was inserted. Judgment had been given in various county courts against corporate bodies in these cases as well as in the High Court. In the present case he did not wish to press his honour unnecessarily on the question of fact, but on the question of law he would say that his friend had misconceived the meaning of the section. A company could carry on business, but they must not assume the title of chemists. On the question of fact the defendants had exhibited on a sign the word "chemists," and they should not have used or exhibited the name or title. What had been said was that the sign was to describe the articles sold in the shop, but with the exception of poisons they were dealing in articles usually sold by chemists.

JUDGMENT

In giving judgment Judge Hill-Kelly said that with regard to the question of law raised in the case he thought that the Section 3 (4) overcame the difficulty of the action of the Pharmaceutical Society v. London & Provincial Supply Association, Ltd., in 1880. A long time before that and after that decision the conditions were such that Section 3 (4) of the Pharmacy Act, 1908, was passed, which applied to a limited company, and so to the defendants in the present case, they being subject to the same provisions as a private person. Under Section 15 of the Pharmacy Act, 1868, if such a company took, used, or exhibited the name or title of chemist, that company was guilty of an offence against that section of the Act of 1868, and liable to a penalty. He therefore came to the conclusion on the question of fact in the case that the defendants took, used, or exhibited the name or title of chemist. "In my view," his honour added, "if any person or limited company exhibits a sign which would induce an ordinary member of the public to believe that the shop where the sign is displayed is a chemist's shop, then that person or company displaying the title of a chemist cannot protect the person or company in saying that the chemist's sign does not say they are chemists. If any letters much smaller than the letters of the word 'chemists' is put on that person or company carrying on the business at this shop cannot say that he or the company is only describing the nature of the goods he or they sell. If you had in smaller letters the words printed 'I am not' and much larger letters 'chemist' the ordinary member of the public seeing that sign would be misled in supposing that the person who ran the shop was a chemist." His honour then dealt with the letters that actually appeared on the sign in question, pointing out that the word "chemists" was in much larger letters than all the rest. In his opinion, the defendants, in using the word "chemists," were acting contrary to the Section, and therefore they would have to pay the penalty demanded by the Pharmaceutical Society. He would give judgment for the plaintiffs for £5 and costs. Mr. Glyn-Jones applied for the costs of bringing the photographer to court, and Judge Hill-Kelly allowed them.

Gazette

Bankruptcy Acts

RECEIVING ORDER AND ADJUDICATION

NOSWORTHY, A. P., 50 Newgate Lane, Mansfield, Nottinghamshire, chemist.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

TAYLORS BRITISH CHEMISTS, LTD. (P.C.).—Capital of £100 in £1 shares. The objects and other particulars are similar to those in British Cash Chemists, Ltd.

JAMES H. WATSON (CHEMISTS), LTD. (P.C.).—Capital £1,000. Objects: To adopt an agreement with A. M. Stray, and to carry on the business of chemists and druggists carried on by Black & Richards, Ltd., of 9 Church Road, Hendon, and 158 Church Road, Willesden. The directors are: J. H. Watson and H. Jackson. R.O.: 9 Church Road, Hendon.

EVANS SONS LESCHER & WEBB, LTD.—The fifth ordinary general meeting was held on March 7 at the Law Association Rooms, Cook Street, Liverpool, when Mr. J. Herbert E. Evans (chairman of directors) presided. In moving the adoption of the report (*C. & D.*, March 8, p. 279) the chairman enlarged upon some of the items in the accounts which differed from those of the previous year. Turning to the profit-and-loss account, the chairman said they would all share in the gratification of the board at being able to show a better result in this year's trading. The trading profit, £32,836, was, they would see, £10,436 more than in 1928, and that after making adjustments in the profit-and-loss account there is an available balance of £24,467, compared with £16,499 a year ago, i.e., approximately 50 per cent. more. The additional profit earned (said the chairman) "is not due to any special windfall during the year; neither is it due to largely increased turnover, or to a much higher rate of gross profit, or to a big reduction in expenses. But it is due to a combination of these three factors; it is, in effect, the cumulative result of the policy which has been the keynote of the efforts of your directors during past years, and which I have elaborated at some length at our previous meetings: namely, to develop the business steadily along the lines which are most profitable, to explore every avenue which leads to efficiency with consequent economy, and to write off in each year all expenses which have been found necessary to achieve those results, even although part of such expense may not have borne fruit in the year in which it was incurred." As a result of that policy they were to-day reaping the full benefit of the efforts of past years. He would like also to add that in valuing their assets this year they had pursued a strictly conservative policy before bringing the figures into the account. Continuing, the chairman said:—"Now, we have given very careful consideration to the allocation of the available balance which in the best interests of the company we ought to recommend. It must be borne in mind that we have spent during the past two years some £23,000 on fixed assets: this, as I have explained, has been necessary for the proper development of the business, and without it to-day's result could not have been attained. Further, we must not overlook the fact that the credit notes to our bankers are due for repayment not later than February 1936, and some provision must be made for the liability which will then arise. Our easiest course, therefore, and possibly some would argue the wisest, from the strictly financial point of view, would be to retain in the business the whole of the profit earned after payment of the Preference dividend. On the other hand, we realise that our Ordinary shareholders have been very patient, and are naturally anxious to get some return on their investment. Having regard, therefore, to all the circumstances, we have decided to recommend to you that after transferring £5,000 to general reserve account, a dividend of 5 per cent. be paid on the Ordinary shares, and we trust that this proposal will commend itself to you. With the transfer of this £5,000 our total reserves in the balance-sheet will amount to some £27,000; in this connection I would also point out that nothing is brought into the account for the valuable goodwill attaching to the name of the company." Mr. T. Edward Lescher, O.B.E., seconded the adoption of the report, which was carried unanimously.

Festivities

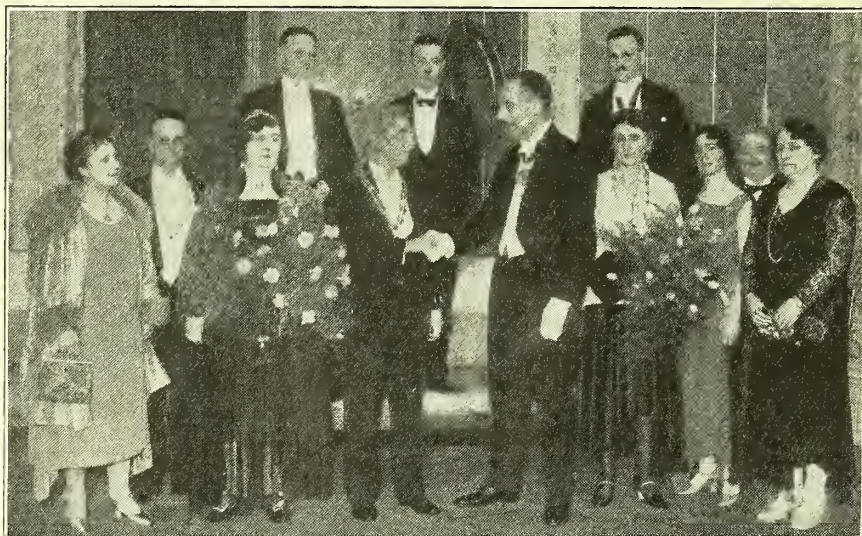
Thames Valley Dinner

THE Thames Valley Pharmacists' Association held their annual dinner on March 5. The president (Mr. H. S. Durbin, Surbiton) occupied the chair, supported by the president of the Pharmaceutical Society, Mrs. Parry, Mr. and Mrs. John Keall, Mr. and Mrs. Marns, Mr. and Mrs. Beardsley, Mr. and Mrs. Alfred Higgs, Mr. and Mrs. McBryde, Mr. and Mrs. Hocken and Mr. F. A. Lawman, Messrs. A. F. Clarke (secretary), Clement R. Evans, E. L. Slade, E. F. Minter and W. S. Howells were in charge of the spur tables. After the loyal toast had been honoured, Mr. Slade proposed "The Pharmaceutical Society," to which Mr. L. Moreton Parry replied. Mr. H. Hocken, proposed "The Thames Valley Pharmacists' Association." He coupled the name of Mr. Durbin with this toast, which was received with musical honours. In reply Mr. Durbin said that they celebrated their twenty-seventh birthday that night, and were a live Association. Dancing continued till midnight.

Complimentary Dinner in Liverpool

THE eightieth annual dinner of the Liverpool Chemists' Association, held at the Adelphi Hotel on March 19, took the form of a complimentary dinner to Mr. L. Moreton Parry, president of the Association and of the Pharmaceutical Society of Great Britain. The Lord Mayor and Lady Mayoress of Liverpool (Councillor and Mrs. Lawrence D. Holt) were among those present, numbering about 150. Mr. J. L. Hirst (vice-president of the Association), who was in the chair, in proposing the toast of "Our Guest," said that occasion was unique in the history of the Association, stretching back to 1849. It seemed a far cry back to the days when the National Insurance Act was ushered in, and yet it was only seventeen years ago. A little prior to that Mr. Parry was elected to the Council of the Pharmaceutical Society. No one who worked with Mr. Parry during that anxious time, the importance of which they could not gauge, could deny the courage and zeal he brought into play in the negotiations. As a member of the Pharmaceutical Society's Council he had made his mark; his name would ever be associated with the Benevolent Fund, and also with the War Auxiliary Benevolent Fund, which he inaugurated in Liverpool. He believed Mr. Parry was the first Welshman to occupy the presidential chair of the Society, and what he had done he could not have done but for the loyalty and help of his wife and daughter. (Applause.) Mrs. Parry was herself a pharmacist, and had spent all her pharmacy career in Liverpool, so that the Society was doubly represented. They wished now to tell Mr. Parry that they regarded his present position as merely a milestone in his progress, for they knew he would find many opportunities which were foreshadowed in the published report of the Departmental Committee on Poisons. He (the vice-president) had pleasure in asking Mr. Parry to accept a cheque subscribed by his Mersey-side friends as a tribute of

esteem. The president, replying, said that "Thank you" meant a great deal when it came from a man's heart, as it did on this occasion. He felt he was only a young man yet, and that he had some years of useful work before him. It was a critical time in their history. He was not at the moment free to discuss the report. He wished, however, to say that neither he nor any other member of the Council were under any obligation in regard to the conclusions in the report, in regard to which they had taken no part, so that they were not compromised in any way. He felt sure that whatever steps the Council took would be wise steps. There was a bigger question at stake than the interests of any section. Mr. T. Edward Lescher proposed "Our City." The Lord Mayor, in reply, said that one of his father's greatest friends was Sir Edward Evans. He felt a special gratification in being present on that auspicious occasion, when their guest stood not only for Liverpool, but for the whole of England. Liverpool was often spoken of as the capital of Wales. He had a profound reverence for their craft, and he was glad to know that the public interest was nearest the heart of those in the profession. Mr. H. Humphreys Jones submitted "The Pharmaceutical Society," which had, he remarked, always kept abreast of the times in education, had excelled in benevolence, and went from strength to strength. The public conscience was sound at bottom, and he could not imagine that a society with a tradition of 90 years' solid specialised work as trustee for the safety of the community was likely to suffer at the hands of their legislators. Mr. H. N. Linstead, secretary and registrar of the Pharmaceutical Society, responding, said



Photo]

[H. A. Smith

Front row (left to right): Mrs. S. Hughes, Mr. S. Hughes (treasurer, Liverpool Chemists' Association), Mrs. L. Moreton Parry, Mr. L. Moreton Parry (president, Liverpool Chemists' Association), Lord Mayor of Liverpool, Lady Mayoress of Liverpool, Mrs. J. L. Hirst, Mr. H. Humphreys Jones (principal, Liverpool School of Pharmacy).

Top row (left to right): Mr. J. L. Hirst (vice-president, Liverpool Chemists' Association), Mr. J. Rae (secretary, Liverpool Chemists' Association), Mr. H. Gilleghan (chairman, Retail Pharmacists' Union Executive).

he had hoped the report of the Departmental Committee would have been a foundation upon which they could build for the future, but he was afraid those hopes had not been realised. The final toast, that of "The Visitors," was proposed by Mr. D. H. Evans and responded to by Mr. H. Gilleghan (chairman of the Retail Pharmacists' Union) and Professor W. J. Dilling (Dean of the Faculty of Medicine, Liverpool University). Mr. Gilleghan paid a tribute to the Liverpool Association. He was, he added, much impressed by the scheme which the director of education for Liverpool had under con-

sideration. He hoped that these proposals would tend to bring the right kind of boy into the pharmaceutical profession. Professor Dilling said that in the past pharmacy had occupied a high social standing and had rendered the community worthy service. He was afraid that, owing to what he termed the commercialisation of pharmacy, the pharmacist had become more and more reduced to the level of the grocer of Elizabethan times. The avenue along which they could advance was that of chemistry. There was any amount of work available if the pharmaceutical profession laid itself out for it; but the pharmacist must come closer to the University. The gate was now open, and the University would place no obstacle in the way.

The "Allenburys" Club

THE annual dinner was held on March 6 at Slater's Restaurant, Leadenhall Street. Two hundred members with their friends sat down to dinner, presided over by Mr. W. B. Nelson, chairman of the club. In proposing "The Firm," Mr. B. E. Kent humorously referred to the outstanding events which had occurred during the past year. Mr. J. Netherway, in reply, assured all members that the directors had the club's interest at heart. He felt that a good sportsman made, as a rule, a good business man, and if for that reason only he hoped that the membership would increase each year. The toast of "The Club" was proposed by Mr. Harry E. Haslam, who referred to the numerous activities of the club, which now consisted of eight sections. Mr. D. Newton, general secretary of the club, replied. Mr. Norman Evers proposed the "Visitors," and Mr. C. Crawley (chairman of the People's Palace Social and Athletic Club) replied. Mr. H. R. Steel proposed the "Chairman," and Mr. Nelson, in replying, said that he considered that the club was an integral part of the firm.

Sporting Function

THE London Chemists' Golfing Society held their annual dinner and dance in the Wharncliffe Rooms, Great Central Hotel, N.W.1, on March 20. The guests, numbering over 300, were welcomed by the president (Mr. T. D. W. Turner) and Mrs. Turner, and included Mr. L. Moreton Parry (president of the Pharmaceutical Society), Mr. and Mrs. William Chalmers, Mr. Herbert Skinner, Mr. F. G. Wells, Mr. W. B. Trick, Mr. F. W. Burgess, Mr. J. W. Quibell, Mr. W. E. Cane and Mr. T. Marns. Following the loyal toast, Mr. L. Moreton Parry proposed that of "The London Chemists' Golfing Society." Their golfing society, he said, had been doing wonderful things. He coupled with the toast the name of Mr. J. W. Quibell. Mr. Quibell, in reply, remarked that they had had a very prosperous year. Every member had supported the meetings. He hoped the Society would arrange for more outings this year. The prizes were then presented to the winners by Mrs. Turner as follows:—Vinolia cup, C. A. Macdonald; Hill cup, R. G. Pickles; Rowland Staggs prize, A. W. Daniel; Thomson cup, G. O. Roper; Burgoyne cup, J. W. Quibell; Leichner cup, P. O. Royle; Erasmus prize, T. W. D. Turner; D. & W. Gibbs prize, M. W. Carmichael; Society prize, W. E. Cane; Mentholatum prize, D. McRae; Hepburn shield, W. Main; Captain's prize, H. Ingram-Royle; Sanger cup, Dr. J. Skelley; B. & C. cup, R. A. Daniel; Thomas Kerfoot prize, W. Main; Yardley cup, W. A. C. Attwood; Arthur H. Cox prize, F. G. Wells; Carmichael trophy, Dr. Mackay; President's prize, R. Ward Jones; T. W. D. Turner's prize, R. G. Pickles; Anniversary 21st Year prize, W. C. Maile. The toast of "The Ladies and Visitors" was proposed by Mr. W. B. Trick, who said that he was having this honour for the tenth time. Replying, Mr. F. W. Burgess said he had had the pleasure of meeting most of the members at Brighton. Mr. D. J. Parry (secretary) proposed "The Chairman," and said that anyone who was not a member and wished to play golf should attend the outings. The chairman said they had had a most enjoyable year, and he thanked them for the way they had received the toast. Dancing followed the dinner.

Associations' Winter Session

Edinburgh.—The sixth meeting of the fifty-second session of the Edinburgh Chemists' Assistants' and Apprentices' Association was held on March 14, Mr. J. J. Blackie (president) in the chair. The first communication was *Notes and Queries*, by Mr. Eric Knott (an abstract of which is unavoidably held over.—EDITOR.) The second communication was on *Sterile Solutions*, by Mr. Gordon Perrins. Sterilisation, he said, consists in the destruction of very minute organisms and their spores. Every qualified pharmacist is expected to be able to prepare a sterile solution. He drew attention to the report of Sir William Wilcox that candidates for the Chemist and Druggist Qualifying examination should receive adequate instruction in the preparation of sterile solutions. Flasks, measures, bottles, pipettes, etc., after cleaning, should either be placed in a hot air oven at 150 to 160° C. for half to one hour, or in a steam steriliser or autoclave at 120° C. for 20 to 30 minutes. The methods employed in the sterilisation of liquids are:—(1) fractional sterilisation, by heating in live steam for 20 minutes on three successive days, the temperature being at 100° C.; (2) autoclaving, by heating in steam under pressure of 10 to 30 lb. per square inch for 10 to 20 minutes; (3) pasteurisation, which is the same as fractional sterilisation, except that a temperature of 70° C. is used, and the process may be repeated about five times; the heat is applied for about one hour; (4) hot air, using an oven fitted with a thermometer. When sterile solutions are to be placed in ampoules, these should be first washed with dilute hydrochloric acid, to remove any surface alkali, and then washed with distilled water, and sterilised in a hot air oven. Rather more than the actual dose should be placed in the ampoule. Salt is added to the water in which the filled ampoules are boiled, in order to raise the boiling point. A little methylene blue added to the water in which the filled ampoules are boiled serves to detect imperfect sealing. The lecturer then dealt in detail with the sterilisation of certain substances.

Corner for Students

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C.4."

QUALITATIVE ANALYSIS

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture may contain metallic and acidic radicals occurring in the British Pharmacopoeia, or any of the commoner radicals not mentioned in that work, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, April 1, on which day the samples will be posted. Students' reports will be received up to Saturday, April 12. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

The analysis announced above forms the final exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who have not passed in Chemistry in the Preliminary Scientific examination in Great Britain, in the Licence examination in the Irish Free State, or in Chemistry, Part I, in Northern Ireland, which fact *must be attested on their reports*. They will not be awarded to former winners of tournament prizes.

The Progress of Pharmacy

AND ALLIED SCIENCES

PHARMACY

Aluminium Acetate Preparation.—F. Uratschko, in "Pharmazeutische Presse" (February 1930, p. 17-18), gives particulars of a method to prepare aluminium aceto-borotartrate.

Solution of aluminium acetate	...	100.0
Tartaric acid	...	1.2
Boric acid	...	0.75

The solution is evaporated to dryness and the resulting product can be packed in ordinary paper, thereby saving freight. Solutions are unaffected by heat and remain clear in 50-per-cent. concentration. The cost is no higher than that of the official preparation.

The Standardisation and Stabilisation of Veratrum Preparations.—E. E. Swanson and C. C. Hargreaves ("Journal of the American Pharmaceutical Association," Vol. XIX, No. 2, p. 122) conclude that fluid extracts and tinctures of veratrum should be assayed biologically because alkaloidal titration is unreliable as a guide to their therapeutic activity. It is recommended that veratrum preparations be assayed by the Lethal Mouse method, in which an intraperitoneal injection is made (0.00025 gm. of drug per gm. weight of mouse, or 0.0025 gm. of tincture per gm. weight of mouse). Distilled water dilutions give more consistent results than alcoholic dilutions and one-half hour readings are preferred as the lethal period. The adjustment of the hydrogen ion concentration to a range between PH 4 and PH 5 appears to stabilise veratrum extracts and tinctures. The stability rapidly decreases with lessening PH values.

Calcium-Sodium Lactate Tablets.—The following method for the preparation of calcium-sodium lactate, and also for its presentation in tablet form, is given in "Farmaceutisk Tidende" (January 18, 1930): A mixture of 1,000 gm. of lactic acid and 1,500 gm. of distilled water is added to a solution of 1,144 gm. of sodium carbonate in 2,000 gm. of distilled water. The mixture is heated to boiling and, if necessary, neutralised by the addition of more sodium carbonate, whereupon 20 gm. of purified charcoal is added, the whole shaken, filtered and the filtrate evaporated to 1,500 gm., in which 872 gm. of exsiccated calcium lactate is then dissolved. Agitate the solution until cool, when it solidifies, and mix this mass with 1,000 gm. of arrowroot and 1,360 gm. of powdered sugar and granulate the product. The granules are then dried at a gradually increasing temperature until they weigh 4,060 gm., whereupon a mixture consisting of 230 gm. of arrowroot, 10 gm. of oil of orange and 290 gm. of talc is added. The product should weigh 4,590 gm. and be compressed into 3,400 tablets, each weighing 1.35 gm.

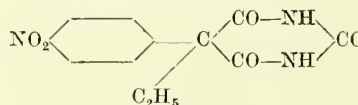
Stability of Tinctures of Strophanthus and Squill, B.P.—An investigation has been carried out to discover the amount of deterioration which takes place in pharmacopœial preparations of tincture of strophanthus and tincture of squill, and the method and results are discussed by G. K. Elphick ("Quarterly Journal of Pharmacy and Pharmacology," 2, 4, 507). Four tinctures of strophanthus, B.P., and six tinctures of squill, B.P., were examined by the cat method, both when freshly made and

after storage at room temperature for periods from seven to nineteen months. The four tinctures of strophanthus gave results indicating a deterioration not greater than 10 per cent. Since each observation was made on three cats only, it is likely that there was no actual deterioration, and that the apparent deterioration is only the expression of the error of the method. Four of the tinctures of squill gave results indicating no deterioration, while two had fallen to 78 per cent. of their original value. It is concluded that tinctures of squill undergo no deterioration significant for therapeutic purposes within the ordinary period of currency.

PHARMACEUTICAL CHEMISTRY

Limits for Impurities in Pharmacopœial Chemicals.—In view of the preparation of a new edition of the British Pharmacopœia, T. T. Cocking ("Quarterly Journal of Pharmacy and Pharmacology," 2, 4, 570), gives tabulated results obtained over several years in the routine examination of pharmaceutical chemicals for traces of impurities. The present limit tests are regarded by some manufacturers as being too stringent. Twenty sets of tables are given. There appears to be no sound reason why the present limits for lead and arsenic should be made less stringent, with two exceptions, acidum aceticum and liquor ammoniæ fortis, in each of which no lead is allowed. It is suggested that a limit of one part of lead per million be allowed in these cases. The "loss on ignition" limit for magnesia levis and magnesia ponderosa is referred to, and a limit of 2 per cent. when freshly prepared and not exceeding 5 per cent. even when long kept is suggested. The words, "not more than the slightest reactions," used by the British Pharmacopœia for certain impurities is too indefinite, and it seems desirable, in this connection, to lay down definite limits for impurities in a number of chemicals in which they occur.

Substituted Phenylethylbarbituric Acids.—E. W. Bousquet and R. Adams ("Journal of the American Chemical Society," 52, 1, 224) have investigated the preparation of substituted phenylalkylbarbituric acids, in order, if possible, to obtain a compound with lower toxicity and possibly higher soporific value than phenobarbital. Attention was given to the nitration of phenylethylbarbituric acid itself. A satisfactory yield of product was obtained, and through



this substance a series of derivatives was produced: the amino, the bromo-amino, the acetamino, the bromo-acetamino, the nitro-amino, the nitro-acetamino, and the chloro. The nitro, the amino, the acetamino, the bromo-acetamino, the bromo-amino, and the chloro derivatives were tested for their soporific value and toxicity. With the exception of the chloro, each was found to be less toxic than phenobarbital itself, but the substitution of these groups caused the hypnotic property to disappear. The chloro compound possessed hypnotic power of almost the same order as the parent substance, phenobarbital, but was slightly more toxic.

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AGRICULTURAL CHEMISTRY

Chemotherapy of Plant Diseases by Dyes.—Georges Truffant and I. Pastae ("Comptes Rendus," 1929, 189, 1013) study the treatment of plant diseases by dyes. In the same way that dyes are being employed in the treatment of diseases in man and animals, the authors have attempted to destroy fungoid growths on plants by means of tetramethyldiamine triphenylchloromethane (malachite green). Owing to the surface tension of the moulds, the authors found it impossible to destroy cultures, and the addition of soaps, molasses, sulphuric acid, etc., was impossible owing to chemical reaction. Some of the newer adhesives were used to stick the dye on the moulds, resulting in the destruction of the moulds. Crystal violet kills that part of a plant with which it comes in contact; auramine is very satisfactory for the treatment of *Sphaerotheca pannosa* (on the rose), *Erysiphe Polygoni* (on peas), white rust on the oak, and several others. Mildew on grape vines is more readily destroyed than white fungi. Sometimes the dye is active in dilutions of 1:3,000, but usually about 1:1,000. The method of treatment is to wet the whole surface over with the dye solution and allow it to dry in the air.

ANALYTICAL CHEMISTRY

Chemical Assay of Thyroid Gland.—C. R. Harrington and S. S. Randall communicate further evidence ("Quarterly Journal of Pharmacy and Pharmacology," 2, 4, 501) to support the contention that a sound chemical assay of thyroid must be based not on the total iodine content, but on the proportion of the iodine which can be obtained in the acid-insoluble (thyroxine) condition after a preliminary alkaline hydrolysis. Commercial samples of dried thyroid were purchased and subjected to analysis for total organic iodine and thyroxine iodine content. A further sample was extracted with cold distilled water, and the amount of iodine which passed into solution was determined and assumed to consist of inorganic iodine. The results show that there exists, as between the different samples, not only considerable variations in the total iodine content but still more significant variations in the thyroxine content.

Sample	Per cent. of total organic iodine in dried gland	Per cent. of thyroxine iodine in dried gland
A ..	0.106	0.03
B ..	0.20	0.12
C ..	0.16	0.08
D ..	0.36	0.15
E ..	0.23	0.11
F ..	0.17	0.09
G ..	0.26	0.10
H ..	0.32	0.19

If the analysis of the samples is accepted as giving a good general indication of the quality of the present commercial product, it may be deduced from the figures that a reasonable specification for desiccated thyroid might require that the total organic iodine should amount to 0.24 ± 0.01 per cent. and the thyroxine iodine to 0.09 ± 0.01 per cent. of the dry weight, permission being given to adjust the strength of thyroid containing larger amounts of thyroxine by dilution with lactose. It is suggested, however, that a satisfactory therapeutic standardisation might be based on the thyroxine iodine percentage alone. The labelling adopted at present by many manufacturers in terms of "fresh thyroid gland" is stated to be not only meaningless but misleading, and should be abandoned. It is further suggested that the inorganic iodine should not exceed 10 per cent. of the total iodine.

New Method of Nicotine Assay.—F. D. Chattaway and G. D. Parkes ("Journal of the Chemical Society," December 1929, 2817) advocate as a means of nicotine assay the almost quantitative precipitation of nicotine as crystalline nicotine tetrachloriodide. This compound is sparingly soluble and stable, and separates out readily, even when a large excess of hydrogen chloride is present. The formation of nicotine tetrachloriodide ensures detection of

one part of the alkaloid in 100,000 parts of water and its assay in solutions containing only 1 in 5,000. The recommended procedure is as follows:—

The dried and powdered tobacco (20 gm.) is ground with 10 c.c. of 55-per-cent. alcohol containing 0.6 gm. of sodium hydroxide and extracted with ether in a Soxhlet apparatus until exhausted. The solvent is distilled off and the residue is mixed with 50 c.c. of 0.4-per-cent. aqueous sodium hydroxide and steam-distilled until about 400 c.c. has come over, or until the distillate no longer gives a precipitate with a solution of iodine trichloride in hydrochloric acid. The distillate is saturated with hydrogen chloride. After cooling, there is added the solution made by saturating with chloride a suspension of 2 gm. of powdered iodine in 20 c.c. of hydrochloric acid. Nicotine tetrachloriodide separates as a yellow microcrystalline powder, which settles rapidly. A slow stream of chlorine is then passed to saturate the solution with chlorine and ensure complete conversion into tetrachloriodide. The precipitated nicotine tetrachloriodide is collected on a tared Gooch crucible, washed with a little concentrated hydrochloric acid, and dried in a vacuum desiccator over phosphoric oxide to a constant weight, the presence of a few lumps of lime serving to absorb the hydrogen chloride in the damp precipitate. The final calculation is based upon dry nicotine tetrachloriodide containing 23.077 per cent. of nicotine.

BIOLOGICAL CHEMISTRY

Liver Oils Rich in Vitamin A.—Signe and Sigval Schmidt-Nielsen ("Biochemical Journal," XXIII, 6, 1153) find that the oil extracted from the livers of halibut, mackerel, salmon, porbeagle and certain other fish yield (by solvent extraction) oils which are extremely rich in vitamin A. Thus the Lovibond blue units for 0.04 c.c. of halibut oil and mackerel oil are 700 and 570, compared with 6 units from a good cod-liver oil. The extracted liver oil from halibut produces satisfactory growth of rats with doses of 0.04 mgm. per day, corresponding to an activity of not less than 25,000 vitamin-A units. Salmon-liver oil and porbeagle oil (extracted) had activities of about 10,000 units. The oil obtained by boiling porbeagle liver with water contains less than one-tenth the vitamin activity of the solvent-extracted oil. All fish livers do not show this difference, cod liver being a notable instance in which heat and solvent extraction yield oils differing but slightly in vitamin value.

Relation of Vitamin A to Carotene.—E. M. Hume and I. Smedley-Maclean discuss ("Lancet," 5554, 290) the divergent results obtained by several investigators in studying the relationship between carotene (formerly written "carotin") and vitamin A. The workers who had found carotene active as a source of vitamin A had always included fat in the diet. The authors find, however, that the presence or absence of fat from the basal diet does not appear to be a factor of any importance in determining the biological activity of carotene. The unsuitability of ethyl oleate as a solvent for carotene affords a sufficient explanation of the discrepancy between Drummond's results and those of other workers on the activity of carotene as a source of vitamin A. Whether this fact supplies the whole explanation it is not yet possible to say. It cannot yet be decided whether carotene acts as a provitamin, or whether carotene from all sources is always accompanied by a constant percentage of impurity, which up to the present has defied all methods to separate it.

A Study of the Preparation and Properties of Vitamin-C Fractions from Lemon Juice has been carried out by H. L. Sipple and C. G. King ("Journal of the American Chemical Society," 52, 1, 420). The guinea-pigs used for testing the preparations were fed with daily doses, which were known to be equivalent to a certain volume of original lemon juice. The test period used was generally fifty-six days. Lemon juice was decitrated by the addition of an excess of neutral lead acetate, and a lead complex containing practically all the vitamin C was precipitated from the resulting liquid at a pH of 7.4–7.6 by the addition of dilute ammonium hydroxide. This active complex was reprecipitated, effecting a decrease in the total solids without appreciable loss of vitamin. Absolute ethyl ether

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precipitated white crystalline inactive material, principally ammonium salts, from alcoholic solution of a highly purified vitamin preparation without precipitating the vitamin. The total solids per c.c. of lemon juice was reduced from approximately 100 mg. in the original juice to 0.28 mg. for the final active preparations. The solid material in the final active fraction was chiefly of carbohydrate nature. The removal of inactive material has been accomplished without a great loss of the original vitamin-C content.

Crystalline Vitamin D.—E. H. Reerink and A. van Wijk ("Biochemical Journal," XXIII, 6, p. 1294) claim that they have prepared the first reaction product of irradiated ergosterol or vitamin D by long-wave irradiation ($\lambda > 275\mu$). All the operations of freeing the product from unchanged ergosterol (by digitonin precipitation) were carried out in an oxygen-free atmosphere. The most potent preparation was estimated to contain about 50 per cent. of vitamin D (minimal antirachitic daily dose being 0.00001 mgm.). It is added that vitamin D can be obtained in a crystalline state, but the low melting point (below 0° C.) makes investigation difficult. At present the description is limited to the statement that the crystals of vitamin D have the appearance of lozenge-shaped plates. Short-wave irradiation ($\lambda = 254\mu$) of ergosterol gives rise to a more complex series of reaction products, at least two being present during the first irradiation period. In the case of long-wave radiation only one product is directly formed from ergosterol, and it is possible to convert 60 per cent. of ergosterol into vitamin D before the secondary reaction becomes important. An ergosterol preparation containing 30 per cent. of vitamin D is healing rickets in children by a daily dose of 0.04 mgm. This is 100 times smaller than that usual for irradiated ergosterol preparations.

The Vitamin-A Colour Test for Cod-Liver Oil.—N. Evers discusses, in two monographs ("Quarterly Journal of Pharmacy," 1929, 4, 556 and 566), questions arising out of the antimony trichloride colour test for the vitamin-A content of cod-liver oil. The first question is the effect of storage in normal and in abnormal conditions of light and oxidation. The author finds that cod-liver oil, when properly stored, retains a considerable proportion of its vitamin-A activity for long periods (up to twenty-six years). The oil loses its vitamin-A activity on exposure to light or oxidation, but the chief cause of loss appears to be the action of light. Sunlight, especially, destroys vitamin-A rapidly and appears to be more active than ultra-violet radiation from a mercury vapour lamp. The colour of cod-liver oil increases in the dark and decreases in daylight or sunlight. Exposure to the air may, however, disturb these colour changes. The oil is best preserved in amber bottles with as little exposure to air as possible. Hydroquinone (0.05 per cent.) does not prevent the action of light.—The second question is the variations in the results obtained by different observers. The following summary is appended to the paper:—

Laboratory	"Blue units" cod-liver oil	"Blue units" cod-liver oil
	A	B
A	15.9	6.2
No. 1 ..	15.0	7.0
No. 2 ..	16.8	4.8
No. 3 ..	15.0	5.3
No. 4 ..	13.2	4.6
No. 5 ..	—	5.0-5.5

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Irradiation of Foods.—D. Nabarro and J. O. Hickman have investigated ("Lancet," 5551, 127) the difficulty of the impairment of the vitamin-A content of milk during the process of irradiation, and one of them (J. O. H.) has devised a method for increasing the antirachitic potency of milk without lessening the vitamin-A

potency. Untreated milk, both whole and skimmed, has very little antirachitic activity. The best sample examined had only 0.1 unit per c.c., and this was taken during a time when the cows were receiving the best "summer feed." The antirachitic potency of the milk can be increased enormously by direct irradiation from a quartz mercury-vapour lamp. Where the potency of the untreated milk could be measured, that of the treated milk was increased nine times by an exposure of eight seconds. An exposure of thirty seconds (the longest period tried in these experiments) had no detectable influence on the vitamin-A potency of the milk. The irradiated milk can cure as well as prevent rickets in children and animals, and is of value in other disorders of nutrition and in other diseases. Irradiation produces a marked decrease in the bacterial content of the milk.—H. Steenbock and five others have carried out numerous experiments ("Journal of the American Medical Association," 93, 24, 1868), extending over a lengthy period in the effects of the antirachitic activation of cooked and uncooked cereals. The activity was found stable to autoclaving for thirty minutes at 15 lb. pressure followed by drying at 60° C. for a few days. Storage for sixteen months at 60° or at lower temperatures did not cause destruction, but after from twenty-three to twenty-eight months there was a decrease in potency. However, long before this time even untreated cereals kept at 60° were rendered too unpalatable for human use. Household cooking has no effect on the activity. Vitamin A and the vitamin B complex are labile to ultra-violet radiations, but evidence of their destruction in cereals can probably not be obtained with such an exposure as is necessary to secure maximum antirachitic activation. The commercial irradiation of cereals was standardised so that the activity induced did not exceed by a multiple of 3 that necessary to form bone of maximum ash content, thus preventing change in palatability, destruction of vitamins and all possibility of hypervitaminosis. By feeding with commercially irradiated rolled oats rickets was prevented in dogs and rats, and no interference in growth or in reproduction was shown in the latter over a duration of fifteen months in four generations.

INDUSTRIAL CHEMISTRY

Pyrethrin Content and Maturity.—C. B. Gnadinger and C. S. Corl investigate ("Journal of the American Chemical Society," 52, 2, 680) the popular belief that immature or closed pyrethrum flowers have greater insecticidal power than open or mature flowers. Samples from three to five years old were collected throughout the flowering season, and the flowers carefully shade-dried. Before the buds were formed, the roots, leaves and stems did not contain any pyrethrins. As the buds formed and developed, their pyrethrin content gradually increased. The last and most mature samples contained four times the percentage of pyrethrins found in the unexpanded buds. The pyrethrin content depends on the maturity of the plant as well as on the development of the flowers. The yield of pyrethrins from a given unit of land can be approximately quadrupled by merely allowing the flowers to mature. In the sample analysed the achenes contained more than 90 per cent. of the active material, and the receptacles and involucre scales contained most of the remainder. The low pyrethrin content of the outer parts of the flower is important, because it affords a means for detecting certain types of adulteration.—The pyrethrin content of different commercial varieties has been investigated by C. B. Gnadinger and C. S. Corl ("Journal of the American Chemical Society," 52, 2, 684). The flowers were examined to determine the proportion of closed, half-closed and open flowers and stems. Some of the Japanese flowers were compressed so that such a separation could not be made. There was little or no difference found in the pyrethrin content of the different grades of Dalmatian flowers. In general, the closed flowers yielded more colour and extractive than the open flowers. The pyrethrin content of the Dalmatian flowers ranged from 0.38 to 0.58 per cent. The Japanese flowers contained from 0.58 to 1.21 per cent. of pyrethrins.

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Citric Acid Production by *Aspergillus*.—H. Amelung ("Chemiker-Zeitung," February 8, 1930) describes experiments carried out on the growth of *Aspergillus niger* (*Aspergillus japonicus*) in culture solutions under varying conditions. This fungus forms typical surface colonies under normal conditions, and attempts were made to prevent surface growth and induce formation of citric acid by growing the fungus below the surface of a culture solution into which a stream of air was injected. The culture solution contained sugar, 10 per cent.; ammonium sulphate, 0.5 per cent.; calcium phosphate, 0.25 per cent.; magnesium sulphate, 0.12 per cent. To 600 c.c. of this solution 60 gm. of sugar was added and a beaker of 7 c.m. diameter was employed instead of a flask, so that the depth of the solution was about 15 c.m. **Experiment 1:** The culture was kept in an incubator at 35° C., and 2 c.c. of the solution was withdrawn at intervals of five days and titrated against *N*/10 sodium hydroxide, with phenolphthalein as indicator. At the end of thirty days the citric acid produced was isolated as its calcium salt. Under the experimental conditions a fleecy yellow mycelium developed; no spores were formed, and acid formation ceased at the end of thirty days, when, however, 30.4 per cent. of the original weight of sugar was still unused. The calcium citrate obtained was 17.3 gm. The acid produced was 22.4 per cent. of the sugar. Oxalic acid was not produced. **Experiment 2:** Conditions as in Experiment 1, except that during the first ten days the cultures were kept at 35° C. and for the remainder of the time at room temperature (17-20° C.). At the end of thirty days only 16.5 per cent. of citric acid was formed and the sugar unused was 52.2 per cent. The calcium citrate isolated was 13.2 gm. **Experiment 3:** Conditions as in experiment 1, except that on the fifth day 10 gm. of calcium carbonate were added, and the period of culture extended to forty days; 19.2 gm. of calcium citrate was produced and the unused sugar was 27 per cent. The addition of calcium carbonate resulted in the production of calcium citrate in flocculent masses and microscopic needles, which adhered to the mycelium. **Experiment 4:** Sodium carbonate solution was added every fifth day, so that the culture solution was only slightly acid; 14.6 gm. calcium citrate was formed and the unused sugar amounted to 36.5 per cent. The mycelium, under these conditions, instead of having a normal yellow colour was greyish. These experiments show that the fungus will grow under water if air is supplied and will produce considerable quantities of citric acid; more acid is produced than if surface growth is permitted, and the addition of substances to absorb the acid do not influence very much the amount of acid formed.

PURE CHEMISTRY AND PHYSICS

Electrical Properties of Emulsions and of Protoplasm.—H. H. Dixon and T. A. Bennet-Clark, in a communication to the Royal Dublin Society on January 28, stated that it was possible to make emulsions of water and olive oil with sodium and calcium soaps in which a small increase in the sodium/calcium ratio caused the emulsion to change over from water in oil to oil in water phases. A like change could be induced by applying a sufficiently strong electrical potential across the emulsion, the change in electrical resistance being a ready means of detecting the change over in state of emulsification. A parallelism between living protoplasts and water in oil emulsions is apparent, as these are the only systems in which the electrical conductivity is known to change as a result of applying an electrical stimulus.

Pellitorine.—J. M. Gulland and G. U. Hopton ("Journal of the Chemical Society," January 1930, 6) have isolated from *Anacyclus pyrethrum*, DC., a pungent acid amide which is purely aliphatic. This is in contrast to pungent principles in general which contain an aromatic nucleus attached to either a basic or acidic radicle. Pellitory root contains about 0.06 per cent. of pellitorine. The pungency of pellitorine is rated at 20 as compared with piperine (100). Pellitorine is with-

out flavour, but a milligram placed on the tongue produces profuse salivation. Its chemical composition corresponds to $C_{14}H_{25}ON$. The presence of one oxygen atom and one nitrogen atom along with the physiological analogy to piperine led to the assumption that pellitorine is an acid amide. This was confirmed by hydrolysis with the separation of a crystalline amine hydrochloride from an oily acid and an oily neutral fraction. The basic fraction was identified as isobutylamine, but the neutral oil and oily acid did not lend themselves to further investigation into the constitution of pellitorine, the amount of the former being too small and the latter being a polymerised or condensed product with a higher molecular weight than pellitorine. It is concluded that pellitorine is the isobutylamide of a *n*-nonadienecarboxylic acid (with two double bonds whose position is at present indefinite). Pellitorine is optically inactive. Its crystalline condition consists of colourless needles melting at 72° C. and boiling between 162° and 165° C. under a pressure of 0.3 mm. of mercury. Pellitorine is insoluble in dilute hydrochloric acid and dilute sodium hydroxide solution, but it dissolves in concentrated sulphuric acid to a faintly yellow solution.

BOTANY

The Hydrocyanic Acid Content of the Lotus Species.—P. Guérin ("Comptes Rendus," 1929, 1011) studies hydrocyanic acid in the lotus species. Hydrocyanic acid as a glucoside is present in at least fifteen members of this species. Determinations made on the leaf stalks show a content varying from *nil* to 0.918 gm. per kg. of fresh plant, this high figure being obtained with *L. edulis*, whose seeds, while young, are edible and used in the same manner as peas. Guérin concludes that the time of year and the locality play a considerable part in the amount of hydrocyanic acid present.

DENTISTRY

Dental Aciduric Organisms and *B. Acidophilus Lacticus*.—F. Rosebury, R. W. Linden and L. Bachbinder ("Journal of Bacteriology," 1929, XVIII, 315-412) give details of the examination of twenty-one strains of aciduric organisms from teeth and nine strains of *B. acidophilus*. The authors were unable to discern any difference between the dental aciduric bacteria and those of the intestines. They carried out comparative morphological, biochemical and serological tests. Casein digest broth was found to be the best medium of growth, but even so it was necessary to inoculate heavily. In general these fermented glucose, lactose, maltose, laevulose and trehalose readily, but not raffinose, no gas being produced in any case. Only one dental strain was distinctly irregular in not showing marked cross-agglutination.

Blood Sedimentation Index for Root Infection.—It has occurred to C. V. Rault ("The Dental Cosmos," March 1930) that change in sedimentation rate of erythrocytes would be experienced in dental infections. Tests were conducted by the graphic method of Cutler. Half c.c. of freshly prepared 3-per-cent. sodium citrate solution is drawn into a 5 c.c. syringe. The cubital vein is punctured and 4½ c.c. blood are drawn, mixed with the sodium citrate solution and transferred to a test-tube graduated to 50 mm., which is closed with a waxed cork. Tests were conducted under thermostatic control at 30° C. The levels of the red blood cells were recorded after readings every five minutes for one hour. In normal persons the red blood cells settle from 2 to 6 mm. in an hour. All examinations were taken under identical conditions: blood was taken four hours after meals and between 11 a.m. and 12 a.m. Conclusions drawn are that in 85 per cent. of cases with sedimentation above 7 m.m. röntgenographic evidence was found at apices of roots of teeth. The sedimentation index is believed to be of value in determining whether pathological changes are taking place, because of pulpless teeth, but it is necessary that other sources of infection be eliminated, because the sedimentation index is a non-specific test for infection.

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ESSENTIAL OILS

Oil of *Laserpitium hispidum*.—B. Rutovski and Makarova Senljanskaja ("Die Riechstoffindustrie," 1928, 3, 140) state that *Laserpitium hispidum* belongs to that family of umbelliferae which was known by the extraction of the crystalline substance laserpitine by maceration of its roots in the presence of alcohol. An essential oil can be extracted, both from the flowers and the fruits. The oil from the flowers during blooming only contains a very small amount of alcohol. The oil from the fruits at this time has a considerable alcohol content, which is found in that fraction of the oil which has s.g. 0.8544-0.8884; optical rotation, $+8.6'$ at 0° ; refractive index, 1.4720-1.5665, 89.35 per cent. of this fraction consists of alcohol. The essential oil extracted from the umbels of the dried, or partly dried fruits contains a considerable amount of geraniol, as this substance is present to the extent of 40 per cent. in the crude oil.

Use of Quartz Lamp in Essential Oil Analysis.—A. Müller ("Riechstoffindustrie," 1928, 3, 29) states that the quartz lamp perfected by Danckwortt and Pfau has been used in the analysis of essential oils by placing several drops of the oil on fine blotting-paper and examining the paper after a few days with the lamp. The following results were obtained by this method. In the presence of an alcoholic solution of ethyl diphthalate no particular indication is given. A pure East Indian sandalwood oil gives a blue ring (as does a sandalwood oil containing 20 per cent. of cedarwood oil). A greenish ring with a light blue border was obtained with linalyl acetate either pure or containing 20 per cent. of terpinyl acetate, and with oil of lavender either pure or containing esters such as geranyl acetate or ethyl diphthalate. In all cases there is no characteristic modification of the fluorescence when the product is grossly adulterated, and consequently the quartz lamp is of no value in the analysis of essential oils.

Essential Oil from French Violets.—H. Walbaum and A. Rosenthal ("Schimmel's Berichte," 1929, 209) state that on extraction with alcohol and steam distillation of the extract a yield of 30.8 gm. per kg. of oil is obtained from the leaves of French violets, which has s.g. 0.9270 and refractive index 1.47642. Fractionation gives an aldehyde $C_9H_{14}O$; b.p., $82-86$ at 6 mm.; s.g., 0.9038; refractive index, 1.47446; oxidation of this aldehyde with silver oxide results in an acid $C_9H_{12}O_2$; b.p., $132-136^\circ$ at 5 mm.; s.g., 0.9911, whose methyl ester, obtained by the action of methyl sulphate on the sodium salt, has b.p. $88-90^\circ$ at 5 mm.; s.g., 0.9338; refractive index, 1.46191; and is reduced to methyl nonoate by hydrogen in the presence of palladium. The acid on oxidation with neutral potassium permanganate solution at 0° only yields acetic and oxalic acids. As the molecular refraction of the aldehyde shows the presence of two unconjugated double linkings it is considered that it is nonadienal.

Japanese Peppermint Oil.—H. Walbaum and A. Rosenthal ("Schimmel's Berichte," 1929, 203) state that reduction of Japanese peppermint oil with hydrogen, using nickel as a catalyst, gives *n*-hexyl alcohol, confirming the presence of Δ^8 -hexenol, b.p. $55-56^\circ$ at 9 mm.; s.g., 0.8508; refractive index, 1.48030. The high boiling ester fraction gives phenylacetic acid on hydrolysis. This can be centrifugally separated from liquid acids. Fractionation of these gives Δ^8 -hexenoic acid, b.p. 90° at 5 mm.; m.p., $34-35^\circ$. A purified sample obtained from *n*-butaldehyde and malonic acid condensed in the presence of pyridine was found to be identical. It is converted into α , β -dibromohexenoic acid by bromine in carbon disulphide. A methyl ester with b.p. $112-113^\circ$ at 4 mm., s.g., 0.9719, refractive index, 1.44129, corresponding with an acid $C_{11}H_{22}O_2$ and acid $C_{12}H_{24}O_2$, is obtained from the acid fraction (b.p. 160° at 4 mm.). The fraction with b.p. $156-157^\circ$ at 4 mm. crystallises, corresponding with an acid $C_{15}H_{24}O_2$.

Physical Constants of Terpene- and Sesquiterpene-free Essential Oils.—T. Klopfer ("Schimmel's Berichte," 1929, 167) states that the terpene and sesquiterpene-free frac-

tions of the following oils have specific gravity and optical rotation as follows:—

Oil	d_{15}^{20}	α_D
Japanese valerian	0.990	-20°
Réunion basil	0.980	$+1.5^\circ$
Birchbud	0.980	-13°
Tarragon	0.9754	Slightly +
Fennel	0.985	$+3^\circ$
		(solidification pt. $+17^\circ$)
Galbanum	0.985	Slightly -
Helichrysum	0.9294	$+0.9^\circ$
Roman camomile	0.914	Slightly +
Pine needle	0.960	-20°
Niaouli	0.937	Slightly -
Origanum	0.937	-6°
Parsley seed	1.125	0°
American tansy	0.932	$+38^\circ$
West Indian sandalwood	0.985	$+4^\circ$
Sassafras wood	1.095	Slightly +
Star anise	0.982	Slightly -
Wine yeast	0.879	Slightly +

Essential Oil of *Ziziphora clinopodioides* L.—B. N. Rutovskii and I. V. Vinogradova ("Transactions Sci. Chem. Pharm. Inst., Moscow," 1927, No. 17, 7). Experiments were carried out on samples obtained from plants grown in Turkestan, and on fractional distillation the Turkestan oil gave four fractions: (1) gave a nitrosochloride m.p. 99° , and oxidation yielded pinonic acid (semicarbazone m.p. $202-203^\circ$), indicating the presence of α -pinene; (2) gave two semicarbazones, one with m.p. $138-140^\circ$ corresponding to an aldehyde, the other m.p. $169-171^\circ$ corresponding to a ketone, which was also obtained by treatment of fractions 3 and 4 with bisulphite. This ketone is pulegone and gives a semicarbazone, m.p. $169-170^\circ$, an oxime m.p. $118-119^\circ$. On oxidation it yields *l*-β-methyl and dipinonic acid, melting at $83-85^\circ$, and on reduction with menthol at $38-40^\circ$. Fraction 1 of the Altai oil contains α -pinene, as shown by its nitrosochloride and semicarbazone. Fractions 2 and 3, after agitation with bisulphite solution for 20 minutes, yielded a mixture of ketones having the following constants: s.g., 0.9362; $\alpha+26^\circ$; n_D , 1.4768. Treatment of the oil with semicarbazide hydrochloride, after separation of the ketones, yields a mixture of impure semicarbazones, which on fractional crystallisation from alcohol gives two semicarbazones, one melting at $176-178^\circ$, the other at $168-170^\circ$.

Essential Oils from Mediterranean Umbelliferae.—According to V. I. Nilov ("Journal Russian Physical Chemical Society," 1928, 60, 1575), the essential oil obtained on distillation from the seeds of *Smyrnum perfoliatum*, a plant allied to the hemlocks, separates into a liquid fraction of a deep violet colour and a crystalline solid. The liquid fraction on distillation *in vacuo* gives the following fractions: (1) b.p. $160-165^\circ$ at 760 mm.; s.g., 0.8767; n_D , 1.4810; consists chiefly of an unidentified hydrocarbon $C_{10}H_{16}$; (2) b.p., $135-140^\circ$ at 200 mm.; s.g., 0.9167; n_D , 1.5061; consists chiefly of a sesquiterpene $C_{15}H_{24}$; (3) b.p., $140-148^\circ$ at 8 mm.; consists of a mixture of substances which were not isolated. The crystalline solid after purification by crystallisation had the constitution $C_{15}H_{22}O$; m.p., 56° ; b.p., $143-144^\circ$ at 7 mm.; s.g., 0.9797; n_D , 1.5100. It does not contain either a hydroxyl or a carboxyl group. On reduction a liquid hydrocarbon was obtained with b.p., $135-140^\circ$ at 12 mm.; s.g., 0.9339-0.9321; n_D , 1.4870. B. The oil from *Seseli dychotomum*, an aromatic plant allied to the fennels, is a liquid with s.g., 0.8754; $\alpha-5^\circ 5'$; n_D , 1.4775. On distillation at 20 mm. 94 per cent. of the oil comes over below 75° . This fraction boils between $157-175^\circ$ at ordinary pressure giving several fractions which can be separated. The first fraction contains α -pinene (nitrosochloride, b.p. 103° , forming a nitrosoterpene, m.p. 131°); on oxidation with potassium permanganate pinonic acid m.p. $103-104^\circ$, is obtained. The higher fractions on oxidation yield nopinic acid, m.p., 126° , indicating the presence of β -pinene in these fractions.

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Dwarf Pine Oil.—H. Weinhaus and H. Nahme ("Schimmel's Berichte," 1929, 233) have examined three samples of oil from *Pinus pumilio* and *P. montana* which were fractionally distilled and the fractions examined. The lowest boiling fractions yield π -hexaldehyde on treatment with neutralised sodium hydrogen sulphite, and probably also traces of cuminaldehyde. The lowest boiling terpene fractions give β -pinene, identified by its nitrosochloride, nitroso-pinene and pinocamporoxime. Oxidation with alkaline potassium permanganate of the fraction, b.p. 162-166° yields nopinic acid, showing the presence of β -pinene. The fraction, b.p. 167-175°, gives Δ^2 -carene as its nitrosate. The fraction, b.p. 44-46° at 10 mm. gives phellandrene as its nitrate. Dipentane and a small amount of limonene tetrabromides are obtained from the fraction, b.p. 175-180°. No sabine was found. From the higher boiling fractions 4-isopropyl- Δ^2 -cyclohexen and an unsaturated ketone $C_{16}H_{14}O$ were obtained by means of sodium sulphite and sodium hydrogen carbonate. Further treatment with sodium hydrogen sulphite did not give any solid derivative, but anisaldehyde was obtained by steam-distillation of the aqueous liquor after treatment with sodium carbonate. The unesterified portion yielded more borneol and an unsaturated monocyclic terpene alcohol, $C_{16}H_{18}O$; b.p. 103-106° at 7 mm.; sp. gr. 0.9516; refractive index, 1.48082; and designated *menthenol P*. This was reduced by hydrogen and palladium to *menthanol P*, and oxidised by Beckmann's mixture to a ketone $C_{16}H_{16}O$. The higher boiling fractions on further treatment with phthalic anhydride and hydrolysis yielded an unsaturated sesquiterpene alcohol *pumiliol*, $C_{15}H_{22}O$; b.p. 140-150° at 3 mm.; s.g. 0.9674; refractive index, 1.50364; acetic, propionic, and hexoic acids are obtained from the 10 per cent. sodium hydroxide solution. Cadinene dihydrochloride was isolated in small quantities by distillation of the higher boiling fractions after removal of the alcohol and esters. The odour is mainly due to carbonyl compounds, which, nevertheless, only constitute 0.15 per cent. of the oil.

FIXED OILS AND FATS

Structure of Fats.—T. P. Hilditch ("Chemistry and Industry," 49, 11, 210) points out that there is a remarkable connection between the natural classification of plants and animals and the predominance of one or more particular fatty acids in the fats derived therefrom. Thus, lauric and/or myristic acids are especially prominent in the seeds of Palmae, Myristicæ and Simarubaceæ; erucic acid in Cruciferae; petroselinic acid in Umbelliferae and Araliaceæ; chaulmoogric and hydnocarpic acids in Flacourtiaceæ; arachidic and lignoceric acids in Sapindaceæ and certain Leguminosæ. Certain fatty acids are almost peculiar to certain genera or species: elæostearic acid to *Aleurites Fordii* and *montana*; ricinoleic acid to *Ricinus communis*; and tariric acid to *Pteranmia* species. However, the majority of seed-fats have only four predominating acids—palmitic, stearic, oleic and linoleic. In these stearic acid exceeds palmitic acid in amount in five botanical families, but the relative proportions are reversed in thirteen other families. In the familiar "drying" oils the proportion of saturated fatty acids (palmitic and stearic) is low and unsaturated fatty acids (oleic, linoleic and linolenic) predominate. There are some 1,400 known natural fats, of which about 150 have technical uses. The structure of glycerides seemed to be determined solely by their origin in plant or animal. There are two sharply defined categories: (1) Glycerides in which fatty acid molecules follow an "even distribution" rule (as in vegetable fats almost without exception); (2) glycerides with more fortuitous combination of fatty acids with glycerol on a probability basis. Animal fats, pericarp fats and artificial fats fall into this class. Cacao butter is an outstanding example of the even distribution rule, the three fatty acids being present in nearly equimolecular proportions. The physical properties of this "oleopalmitostearin" come close to those of an individual compound, e.g., a sharp melting point. The drying oils become converted into gelatinous or horny substances owing to highly unsaturated acids absorbing oxygen.

HYGIENE

Thumbs and Dummy Teats.—E. A. Barton compares ("Lancet," 5555, 348) the relative septicity of the dummy teat with that of the thumb. A sterile swab was dipped into a tube of 10 c.c. of culture medium, and wiped three times against the side of the tube to remove excess of medium. The dummy, or the thumb, was then wiped six times in different directions in its long axis. The swab was then immersed in the culture medium and stirred for five seconds. Graded quantities of this emulsion were immediately plated out and after twenty-four hours' incubation the colonies were counted, averaged, and the results expressed as numbers of colonies per c.c. The author's table shows that the comparative figures are for the dummy 6,935 colonies whereas the number of colonies for the thumb amount to 71,388, or over ten times that of the dummy. The thumb, therefore, is ten times more septic than the dummy. Apart from the effect of constantly sucking the foul thumb, there is another side which demands consideration. The thumb is a hard body, and if frequently in the mouth tends to pull forward the growing pre-maxilla together with the incisor teeth, so that the upper incisors project forward often beyond the upper lip, giving the "dents des Anglaises" appearance which the French love to caricature. When the child has cut its second dentition the dentist then reaps his harvest of extractions and plates with wired tensions to press into place the prominent incisors. Another result of thumb-sucking lies in the fact that the thumb having a joint, the ball of the thumb is flexed in the mouth and the palate is thus pressed up into a high arch at the expense of the nasal floor, thus lessening the lumen available for breathing through the nasal passages, with consequent congestion and all the associated evil results.

MATERIA MEDICA

Anti-Gripping Constituent of Cascara Sagrada.—M. Harris and E. D. Davy ("Journal of the American Pharmaceutical Association," Vol. XIX, No. 1, p. 28) suggest that emodin either free or combined acts as an anti-gripping agent when present in extracts of cascara sagrada. This deduction is based upon a non-gripping fluid extract of cascara becoming very gripping after ether extraction to remove emodin.

Ergot Research.—In view of the serious loss of ergotoxine which occurs on keeping liquid extract of ergot, J. H. Burn has been experimenting with powdered and defatted ergot ("Quarterly Journal of Pharmacy and Pharmacology," 1929, 4, 515) as a means of maintaining a sufficient concentration in the circulation. Cats were selected for the tests, and the powdered and defatted ergot was given *per os*. The amount of ergotoxine in the circulation was estimated by determining the dose required to produce a reversal of the pressor effect of adrenalin in the spinal preparation, and observing whether this differed from the dose required in normal cats. Normal cats require 0.507 mgm. per kilo, and cats which have eaten 1 gm. of ergot eighteen to twenty hours before require only 0.259 mgm. per kilo. It was calculated that a cat may absorb about 30 per cent. of the alkaloid present in 1 gm. of a good sample of ergot within twenty hours of eating it, e.g., 0.75 mgm. The amount of ergotoxine in the circulation was approximately the same after forty-two hours. It is concluded that powdered and defatted ergot, enclosed in capsules, may be used medicinally to maintain a concentration of ergotoxine in the circulation during the puerperium, an initial dose of the alkaloid having been injected under the skin after the delivery of the placenta. —F. Wokes and G. K. Elphick ("Quarterly Journal of Pharmacy and Pharmacology," 1929, 4, 539) follow up the work of Linnell and Randle in 1927 by investigating, by means of fractional percolation, the loss of available ergotoxine in official processes for making liquid extract of ergot. A 1 in 1 extract takes out rather less than half of the total available ergotoxine. A 1 in 2 extract takes out between two-thirds and three-quarters. If percolation is continued beyond a 1 in 2 extract, the

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amount of ergotoxine in each fraction diminishes steadily, and the sixth fraction contains only a sixteenth of the ergotoxine present in the first fraction. The total extractive matter in these fractions diminishes much more rapidly than does the ergotoxine, indicating that there is greater difficulty in the extraction of the ergotoxine. The total solids in a liquid extract of ergot cannot be taken as any guide to the ergotoxine content. In the assay of ergot the extract prepared should be at least as dilute as 1 in 4, which may be assumed to take out about nine-tenths of the total available ergotoxine. In the case of previous assays of ergot which were based on the assumption that a 1 in 1 extract had removed all the ergotoxine, the results will require to be increased by 100 per cent. On the basis of these figures, if Polish or Russian ergots are to be rendered available for the preparation of liquid extract of ergot, the standard for this extract should be reduced from its present level of 0.05 per cent. to less than half (i.e., 0.020 or 0.015 per cent.). If such a reduction was made, while it would admit the employment of some poorer ergots, the much greater yield obtainable from good ergots would give a considerable advantage to those who used them. The assistance of Stafford Allen & Sons, Ltd., is acknowledged.

MEDICINE

Clinical Use of Digitalis.—K. F. Wenckebach delivered an address, in connection with the 150th anniversary of the opening of Birmingham General Hospital ("British Medical Journal," 3604, 181), on the use of digitalis at the bedside. The author prefers standardised leaves, in powder, to any other form; these leaves are obtained, as far as possible, from the same source. In some cases, however, subcutaneous and intravenous injections of certain derivatives are of the greatest use. Among adjuvants used are atropine, caffeine, theobromine, ephyllin, strychnine and quinine. Details of intermittent treatment are given.

Sodium Morrhuate in Varicocele.—T. T. Higgins and P. B. Kittel report excellent results ("Lancet," 5550, 68) with injections of from 0.5 to 1 c.c. of a 5-per-cent. (or occasionally stronger) solution of sodium morrhuate in cases of varicocele. They have dealt with 187 cases in ten months. There has been no instance of necrosis, and there have been only thirteen known instances of phlebitis. The average number of sittings has been 1.82 per case. The solution is free from the risk of general toxic effects. The phlebitis induced is effective and controllable, and the risk of local complications is slight. The treatment is as free from pain and discomfort as can be reasonably expected of any artificially induced inflammatory process.

Avertin Narcosis.—In two separate papers, F. B. Parsons and G. Edwards ("British Medical Journal," 3589, 709, 713) discuss the best method of administering avertin (tribromethylalcohol) and suggest its contraindications. In aqueous solution it is decomposed at temperatures above 50° C. into hydrobromic acid and dibromoacetaldehyde. It is supplied in a concentrated solution in amylene hydrate (1 gm. in 1 c.c.), and 0.1 gm. per kilo of body weight is regarded as a safe dose. Solutions for use should be freshly prepared, and before injection should be tested by adding two drops of a 1-1,000 solution of Congo red to 5 c.c. of the avertin solution. If the indicator gives a blue or purplish colour the solution is not satisfactory. Full anaesthesia is occasionally obtained by the rectal injection of avertin alone, but more usually a small quantity of inhalation anaesthetic is required to complete the process. The falling asleep is gradual and peaceful. Inflammation and ulceration of the colon, renal and hepatic lesions and a few other conditions are given as contraindications. As a routine anaesthetic, avertin is hardly practicable.

Acquired Tolerance for Arsenic.—I. W. Hall and R. H. Ellis give details ("Lancet," 5557, 448) of *post-mortem* and analytical findings in the case of a shepherd, aged forty-eight, who, though death was proved to be due to infection by *aertrycke* bacilli, retained the following amounts of arsenic in various organs:—Large

intestine contents, 0.009 gr. in 87; large intestinal wall, 0.011 gr. in 686; liver, 0.148 gr.; lungs, 0.005 gr.; heart, 0.002 gr.; kidneys, 0.053 gr. Other organs examined yielded only a trace of arsenic or none. The general blood stream, according to the arsenic contents of brain, lungs, spleen, was carrying a minute amount. If a similar quantity had been carried daily for twenty days it could constitute a considerable addition to the hepatic residue, and point to the probability of an original intake not far short of a minimal human toxic dose. The morbid anatomy of the organs supports this inference. The authors suggest that, through the ease of occupational intake of arsenic, a tolerance had been established. Such tolerance seems to be associated with certain histological appearances and a distribution of arsenic differing from those of homicidal poisoning. They add that the supervision of those engaged in handling commercial solutions of arsenic might be more precise. Workers vary in their susceptibility to arsenic, and a dosage which may evoke tolerance in one individual may damage another permanently.

Treatment of Nasal Sinusitis.—A. L. Yates, in the course of a monograph on sinusitis and other nasal troubles ("Lancet," 5554, 282), states that if the condition is one of atrophy with crusting in the nose and often with offensive smell, the nose should first be cleaned of crusts and discharge with hydrogen peroxide, and, if necessary, the crusts should be removed with forceps. When it is clean it may be packed with gauze, soaked in the following solution and this retained in the nose for 24 hours:—Iodoform, 30 gr., bismuth. subnit. 60 gr., paraffin. liq. ad 1 oz. After removal the nose is cleansed twice daily, first by douching with saline, then with: Hydrogen. peroxid. (vol. 20) 1 oz., normal saline ad 10 oz. This should be warm and the strength of the peroxide should be increased until slight stinging follows its application. The nose should then be vigorously blown and the following solution swabbed into the nose with wool:—Calaminæ 60 gr., glycerin. 1 dr., aquæ ad 1 oz. It does not, however, reach the sinuses, and if, as generally, these are affected they must be washed out. Saline may first be used for this, but if it fails to stop discharge a 1-per-cent. solution of argyrol may be tried. If the sinus condition does not clear up with treatment it is good practice to use formalin vapour as a means of treatment. The use of this is based upon the fact that workers in trades in which formalin is used do not catch colds, and often lose their nasal infection when they start employment of this nature. A little 1-per-cent. formalin is placed in the patient's bedroom and allowed to work while he sleeps.

Hog's Stomach in Pernicious Anæmia.—A series of nine cases of pernicious anæmia is reported upon by J. F. Wilkinson ("British Medical Journal," 3605, 236). These cases were divided into three groups, which were treated respectively with (a) normal gastric juice, (b) raw fresh mucous membrane or muscular layer of hogs' stomachs, and (c) desiccated preparations from these two portions of the stomach of the hog. The results were controlled. The final results obtained in all cases are at least equal to, whilst the immediate clinical results appear to be distinctly better than, those obtained in corresponding cases on a fresh liver diet. Normal gastric juice (150-200 c.c. daily with meals) has given a definite improvement in the clinical condition, blood picture, and reticulocyte response slightly better than is observed with a fresh liver diet under similar conditions. Hydrochloric acid and commercial pepsin alone have no effect in the improvement of the hæmatological condition of pernicious anæmia, nor are they essential for successful treatment with stomach of the hog. Clinically there is little difference in the potencies of all the preparations of hog's stomach described, whilst fresh stomachs, both whole and dissected, have been kept for several days at a low temperature without noticeable loss in activity. Since both the peptic-enzyme-containing (mucous membrane) and the non-peptic-enzyme-containing (muscle) portions of the stomach of the hog are active, they may be placed in the same category as liver and kidney as very potent sources of the active hæmatopoietic

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substance.—Similarly favourable reports are given by A. Renshaw ("British Medical Journal," 3067, 334) and by H. M. Conner ("Journal of the American Medical Association, 94, 6, 388).

OPTICS

Ocular Symptoms of Vitamin A Deficiency.—A. Pillat ("National Medical Journal of China," October 1929) enumerates the ocular symptoms of vitamin A deficiency, which he finds are best studied in adults. Night-blindness is unaccompanied by positive eye-ground findings, and is therefore called essential night-blindness or hemeralopia. Dryness of the ocular conjunctiva appears in four clinical forms: Bitot's spots; irregular xerosis of large parts of the conjunctiva; loss of lustre; and wrinkling of this membrane. Xerosis epithelialis corneae is often associated with types of the previous xerosis, and rarely occurs alone. Keratomalacia is the last stage of vitamin A deficiency in the adult eye. Other symptoms frequently encountered are pigmentation of the conjunctiva, meibomitis, blepharitis and hordeolum, decrease of the lacrimal fluid, oedema and puffiness of the lids, and comedones near the eyes. All these symptoms disappear when proper nourishment is given or treatment with cod-liver oil is undertaken.

The Lens Capsule in Accommodation.—E. F. Fincham ("Transactions of the Optical Society," 1928-29, No. 3) states that although abundant evidence is now available in support of the general principle of Helmholtz's theory of accommodation, no definite explanation has been given of the formation of the "lenticulus" discovered by Tscherning, which led him to challenge that theory. In the present paper the author describes the determination of the anterior surface of the lenses of freshly dead animals by making photographic records of the image reflected from the surface. The lenses of a number of different species were examined and records made when the lens was held under tension by its normal suspension and also when the suspensions were removed. The thickness of the capsule in each case was then measured microscopically. The results show that in primates the anterior surface of the lens assumes a somewhat conical form, with an area of increased curvature in the centre, when the suspensions are severed. The capsule of the primate lens has a zone of increased thickness surrounding a central thin area. The theory is formulated that accommodation consists of a relaxation of tension upon the lens by the contraction of the ciliary muscle as stated by Helmholtz. This relaxation allows the capsule to press upon the lens substance and mould it into the accommodation form. In the unaccommodated state the tension under which the lens is held by its supporting fibres does not permit this compression. The unaccommodated lens substance is therefore in its unrestricted or natural form, and not under compression as supposed in the Helmholtz theory.

VETERINARY MEDICINE

Toxicity of Aqueous Extract of Bamboo Shoots.—M. K. Garudachar ("Veterinary Journal," January 1930) states that bamboo shoots contain 0.023 per cent. of hydrocyanic acid. All parts of shoots are not equally harmful, and probably the brownish tips are the most dangerous. To get the effect the shoots must be finely cut for the extract. The hydrocyanic acid does not appear in quantity till after the third day of soaking in water ("Kalate Neeru"). Treatment is practically impossible, as it would be too late by the time the veterinarian could arrive.

Susceptibility of Cattle to Carbon Tetrachloride.—T. Wilson and F. Blakemore ("Veterinary Record," February 15, 1930), who have been testing the value of carbon tetrachloride in the treatment of liver fluke in older cattle, describe three cases to illustrate the extraordinary susceptibility of some bovines to this drug. The average weight of the cattle treated was 900 lb., and the dose, which was administered without fasting, was 5 c.c. In view of the manner in which the animals were affected, it is considered that the drug is too uncertain in its action to merit its use in cattle practice.

Stimulating the Motility of the Ruminant Stomach.—Drugs having a stimulant action upon the muscular tissue of the ruminant stomach, and, by virtue of this action, aiding in restoring depressed states of rumination to normal, are designated as ruminatorics. Experimental work on this subject has been undertaken by Roger S. Amadon ("Journal of the American Veterinary Medical Association," January 1930) with the object of (a) determining the relative efficiency of the various drugs which are considered by clinicians to possess ruminatoric properties, and (b) determining the effects exercised by each drug when given in varying doses. The results are summarised as follows:—Drug stimulation affected principally the strength rather than the frequency of the gastric movements; tartar emetic (120-150 grains), well diluted with water, gave excellent results; but barium chloride is apparently of little value as a ruminatoric. Eserin salicylate in doses of one-half and three-fourths grain produced the most powerful motility observed during this study. Two administrations one hour apart were found to be particularly efficient. Arecolin hydrobromide was very efficient in doses of one-sixteenth and one-eighth grain. Administrations of one-fourth grain and above cause depression of gastric motility for three-quarters of an hour. Pilocarpin hydrochloride failed to exhibit more than mild stimulation in one-grain doses. Depression appears with one and one-half grain. Lobelin sulphate was found to be quite variable in action and with pilocarpin may be classed as one of the weaker ruminatorics.

Experiments with Anthelmintics.—R. Daubney, ("Veterinary Journal," January 1930) states that drugs administered to sheep by drenching pass in bulk to the rumen, and do not reach the abomasum and small intestine for some considerable time after ingestion. Capsules pass to the rumen, and open in that division of the stomach. The contents of both drenches and capsules are therefore subjected to a high degree of dilution before reaching the abomasum or small intestine. Drugs administered by stomach-tube, passed into the oesophagus only, pass in bulk to the rumen, as in the case of drenches; when, however, the stomach-tube is passed to its fullest extent a large proportion of the dose reaches the abomasum direct. It is suggested that this method should prove useful in the administration of anthelmintics. When a volatile compound such as petroleum-ether is employed, there is less risk of causing tympany of the rumen if this method of dosing is followed. Carbon tetrachloride alone administered by stomach-tube proved to be from 91 per cent. to 100 per cent. efficacious against hookworms in a single dose at a dose-rate of 0.1 c.c. per pound body-weight. At this dose the drug killed four animals out of a total of nine tested. Smaller doses of CCl_4 given in soft gelatin capsules produced no fatalities. A single dose of 3 c.c. given in this manner was the smallest completely efficacious dose. The addition of a comparatively large dose of magnesium sulphate to the treatment completely protected animals against the toxic action of large doses of the drug, without in any way impairing its anthelmintic efficacy. Carbon tetrachloride displayed no anthelmintic activity, against nodular worms, *Oesophagostomum columbianum* or against *Ostertagia* or *Trichostrongylus*. Tetrachlorethylene showed a variable efficacy against hookworms, ranging from 9.3 per cent. to 100 per cent. It is not likely to prove as useful as CCl_4 in the treatment of infestations in sheep. Tetrachlorethane, pentachlorethane and trichlorethylene proved valueless owing to their extreme toxicity. Hexachlorethane in one sample proved to have a high efficacy against hookworms; a second sample was considerably less active. Sodium-trichloracetate, ethyl-trichloracetate and paradichlorobenzene were of no value against hookworms, nodular worms or small trichostrongyles. Copper sulphate and tobacco infusion, and turpentine and linseed oil failed to remove any hookworms, in spite of the fact that they are frequently recommended for this purpose. The administration of oil of chenopodium to sheep intravenously is so dangerous that the method is impracticable as an anthelmintic measure.

Trade Notes

THE attention of readers is called to the coloured advertisements in this issue, where the following manufacturers make announcements of interest:—STAFFORD ALLEN & SONS, LTD.; GEM AUTOMATIC WEIGHING MACHINE CO., LTD.; A. BOURJOIS ET CIE, LTD.; BUTLER & CRISPE; A. DE ST. DALMAS & CO., LTD.; THE LEYLAND & BIRMINGHAM RUBBER CO., LTD.; POTTER & CLARKE, LTD.; W. J. RENDELL, LTD.; JAMES WOOLLEY, SONS & CO., LTD.

ANZORA PERFUMERY CO., LTD., Willesden Lane, London, N.W.6, are offering a window display bonus in connection with their well-known products during April. Some excellent cut-out show material is available.

TINTEX & DYE PRODUCTS, LTD. (Suite 60), 252-60 Regent Street, London, W.1, ask us to draw the attention of subscribers to their 6d. lines advertised in the *C. & D.*, March 15, as the cost price should read 48s. per gross, and not as given.

FARROW & CO. (LONDON), LTD., glass bottle manufacturers, 87 Borough High Street, London, S.E.1, have been appointed sole agents for the United Kingdom (and export) for Charles Hartmann, chemical and perfumery manufacturers, Basle, Switzerland.

SULPHUR AND YEAST TABLETS.—Blyton, Astley & Co., Ltd., Eagle Laboratories, Lower Broughton, Manchester, who claim to be the originators of these tablets, offer a free 7½d. packet to any chemist who applies to them. The tablets are made in various colours, their yeast content is guaranteed, and they are very palatable.

SOIR DE PARIS.—The illustration below is a photograph of a suggested window display of the latest toilet products of A. Bourjois et Cie, Ltd., 4 Water Lane,



London, E.C.4. There is a striking coloured inset in the advertisement pages of this issue wherein will be found details of the individual lines.

REUDEL BATH SALTRATES.—Particulars are given elsewhere in this issue of a bonus offer which is available between March 31 and April 7 in connection with Reudel Bath Saltrates. The distributors are Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.1.

DEVELOPING AND PRINTING.—Photographic chemists, especially those situated in the Midlands, will be interested in the developing and printing service offered by Munns Brothers, Ltd., 45-57 Summer Row, Birmingham. There is a daily collection and delivery locally, and all postal work is despatched on the same day as received.

FAULTLESS RUBBER PRODUCTS.—The Standard Insulator Co., Ltd., Winsley House, Wells Street, Oxford Street, London, W.1, have been appointed selling agents in the United Kingdom for The Faultless Rubber Co., Ashland, Ohio, manufacturers of hot water bottles, douche syringes, and all surgical and household rubber goods. In Lancashire, Yorkshire and Cheshire, Mr. E. A. Hollinrake is now representing the Standard Insulator Co., Ltd., and Mr. I. P. Armstrong for the London area.

GALOSTHETIC has recently been registered as a trademark by Mr. Alexander Gall, chemist and druggist, Fraserburgh, and is applied to a local anaesthetic which he has been supplying for the past eighteen years to a limited circle of the medical and dental profession. Mr. Gall has sent us copies of a number of testimonials he has received in praise of his preparation, and offers to forward a sample to anyone entitled under the Dangerous Drugs Acts to be in possession of it.

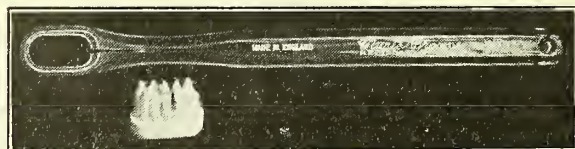
BOB MARTIN, LTD., dog medicine manufacturers, Southport, are issuing a showcard (10 in. by 8 in.) which is a reproduction of a painting by Arthur Wardle. During the next three weeks one will be included in every display parcel, particulars of which are given in the advertisement pages. In a trade circular that is being despatched it is stated that the "home" sales of Bob Martin's tasteless condition powders in 1929 showed an increase of 52 per cent. over the previous year.



SURGICAL DRESSINGS.—Britton, Malcolm & Waymark, Ltd., 38 Southwark Bridge Road, London, S.E.1, are offering Ministry of Health standard surgical dressings packed in cartons. A new note has been struck with these packings, as the predominant colour is orange—a pleasant relief from the usual blue. The advantages of the carton package to the customer are obvious: a paper packet is torn up when opened, but a carton provides a clean receptacle for the portion of dressing not immediately used. In the series under discussion this feature is carried further, as the 1oz., 2oz., and 4oz. lint and wools are enclosed in a waxed paper bag opening at one end, before packing into the carton. The cost is very little more than that of packets, and on certain orders not only is the chemist's name and address printed, but a supply of empty cartons for display purposes is provided. It is intended to offer the dressings packed in this style to only one chemist in each locality.

HOLOPHANE, LTD., 8 Elverton Street, Vincent Square, London, S.W.1, have sent us a number of their publications relating to such matters as shop window reflectors, flood lighting and modern shop lighting. Copies of these, which, with their charts and other data, are interesting, instructive and useful for reference, will be sent to anyone who inquires for Booklet C.D.8.

MUCH has been written regarding the use and abuse of the tooth-brush, the ideal shape for such an implement, and so on, but one of the latest to be placed on the market differs in several respects from its predecessors, and is finding considerable favour with the dental



profession. The brush referred to is the Murie-Browne refillable, as illustrated herewith. The advantages claimed for this brush are that the size facilitates its use in a proper manner, while the bristle portion can be removed, sterilised and dried, one or more refills being substituted in the interim as required. The bristle portion is available in the hard and medium varieties. The proprietors are Murie-Browne, 98 Broad Street, Birmingham

PEN PRODUCTS.—Clay & Abraham, Ltd., 87 Bold Street, Liverpool, have followed up the success achieved by their Iodine Pen with three similar articles, namely, Mosquito, Cuticle and Peroxide Styptic. Each type is packed in the same manner as the original product, and attractive display outers have been designed for one dozen. The needs of the busy chemist have been carefully studied by using a differently coloured exterior for each outer, and the ends of the metal tubes have also been enamelled to distinguish the individual members of the Pen family.

LIQUID PARAFFIN.—A. de St. Dalmas & Co., Ltd., Leicester, have sent us a sample bottle of their liquid paraffin. This oil is standardised to s.g. 0.890 and a viscosity of 300 as shown by the Redwood viscometer. In addition it has a cold test which ensures a perfectly clear oil at 0° C. The style of packing is smart, there is a plentiful supply of display material, and the retail prices are protected. The oil can be supplied in 2-, 5- and 40-gallon drums, as well as the smaller sizes, and contracts can be booked for supplies to be taken over a period of twelve months.

Retail Pharmacists' Union

Election of Executive Committee

THE following is the result of the election of the Executive Committee for the two years ending March 31, 1932:—

AREA 1—METROPOLITAN

Voting papers issued, 1,482; valid, 669.

Melhuish, A. H. ...	517	Clement, H. E. ...	228
Keall, J. ...	507	Corrall, G. F. ...	160
Atkins, E. A. ...	433		

AREA 2—WESTERN

Returned Unopposed

Marshall, H. H. | Phillips, F. D

A vacancy still exists in this area.

AREA 3—SOUTHERN

Returned Unopposed

French, J. E. | Rowsell, P. F.
Martin, H. J.

AREA 4—NORTH-EASTERN

Voting papers issued, 1,008; valid, 576.

Gilleghan H. ...	425	Forster, W. ...	398
Hindle, F. ...	425	Twigg, J. G. ...	205

AREA 5—NORTH-WESTERN

Returned Unopposed

Clubb, W. H. | Scholes, W. I.
Hardy, T.

AREA 6—CENTRAL

Returned Unopposed

Carr, E. C. | Stearn, S. J.
Hague, J.

Branch Meetings

Ipswich.—A meeting of the Ipswich and District Branch was held on March 24, Mr. S. J. Stearn in the chair. In reply to a query, Mr. Hales stated that the Photographic Dealers' Association price agreed on at a meeting on January 31 was 1s. 10d. for developing and printing the new 3½ × 2½ eight-exposure film. A resolution was carried, on the proposal of Mr. Stearn, that thanks be given to Mr. Smalley for his six years' strenuous work on the R.P.U. Executive. Mr. Bennett proposed that good wishes be given to the chairman, Mr. S. J. Stearn, on his election to the R.P.U. Executive.

Ideal Home Exhibition

THE annual Ideal Home Exhibition organised by the "Daily Mail" was opened at Olympia, London, W., on March 24, by the Lord Mayor of London and the Lady Mayoress. The present exhibition has the advantage of two extra acres of floor space provided by the new Empire Hall, and occupies ten acres in all. The British Empire section, appropriately housed in the Empire Hall, demonstrates the resources of almost every Empire country.

In the food and cookery section are stands of:—SPARKLETS, LTD., who show Sparklet syphons; JOSEPH NATHAN & Co., LTD. (Glax-ovo); BRAND & Co., LTD. (essence of beef and chicken and invalid foods); RIDGE'S FOOD Co. A new machine for producing soda water is to be seen on the stand of SODAX (1929), LTD. NEWBALL & MASON, LTD., feature essences and extracts. HORLICK'S MALTED MILK Co., LTD., display malted milk, and make a special sample offer. FOX'S GLACIER MINTS, LTD., show Glacier mints, barley sugar, and a new medicated sweet. Ovaltine, Jecomalt, and Ovaltine-chocolate are three specialities on the stand of A. WANDER, LTD. VIROL, LTD., feature Virol and Milk, Virol and Virolax. Other exhibitors in this section include BEEFEX, LTD. (Beefex); ENERGEN FOODS Co., LTD. (starch-reduced preparations for special diets); BE-ZE-BE HONEY Co., LTD. (honey, lemon cheese); THE MARMITE FOOD EXTRACT Co., LTD.

The ANGLO-AMERICAN OIL Co., LTD., demonstrate Flit insecticide. C. R. HARKER, STAGG & MORGAN, LTD., exhibit Peldo cream. RELIANCE RUBBERWARE, LTD., have a comprehensive display of rubberware, including sponge-bags, hold-alls, mats, sponges, etc. JEYES' SANITARY COMPOUNDS Co., LTD., exhibit Jeeyes' fluid, sanitary powder, toilet paper, and soap. On the stand of THERMOS (1925), LTD., are to be seen "Stronglas" flasks, vacuum jugs and jars, and luncheon cases.

Exhibitors in the toilet section include:—POTTER & MOORE, LTD., whose stand is devoted to perfumes and toilet specialities. "Field-day" for shaving attracts attention to the exhibit of J. C. & J. FIELD, LTD., who also show Our Nell toilet soap. KOLYNOS, INC., exhibit dental cream, denture powder, skin soap, and tooth-brushes. CAMILATONE, LTD., display a complete series of Camilatone preparations. CUSSENS, SONS & Co., LTD., feature Lemolive, a new soap, as well as other lines.

Predominating on the stand of MOUSON (W. H. THOMAS) is the lilac series. The OATINE Co. show Oatine cream. BRITISH TINTEX & DYE PRODUCTS, LTD., feature by demonstration the uses of the Tintex group for home dyeing. AUTOSTROP SAFETY RAZOR Co., LTD., show safety razors, strop-dressing and shaving-cream. The new Probak blade is prominently displayed. W. J. MYATT & Co., LTD., exhibit safety razors, blades and razor sets. SILK'S TOILET Co. show Silkodono. Perfumes, soaps and toilet luxuries are to be seen at the stand of DUBARRY ET CIE. I. CALVETE, LTD., are showing electrical specialities.

The DHAUSSY POWDER BOX Co., LTD., display an ingenious sifter-box which is available in a range of colours. NILDÉ (PARIS) AGENCY, LTD., have a stand of toilet and beauty preparations and demonstrate Buty-wave shampoo. THE SCHOLL MFG. Co., LTD., show a selection of corrective foot appliances. Other exhibitors in this section include:—MRS. POMEROY, LTD. (toilet preparations); COSCUTIS Co., LTD. (vanishing cream, cold cream, and bath cubes); PAPIER POUDRÉ, LTD. (Papier Poudré and Poppœa preparations); H. B. SLEEMAN & Co., LTD. (Swansdown series, Punkt rollers); BRITISH AMERICAN SAFETY RAZOR Co., LTD. (safety razors, blades, corn knives); ROLLS RAZOR, LTD. (Rolls razors, soap and cream).

Among the many other stands in the exhibition the following are of interest to the drug trade:—KODAK, LTD. (Kodascope); FURMOTO CHEMICAL Co., LTD., (polishes); THOS. S. JACKSON & SONS, LTD. (polishes); THERMEGA, LTD. (electric blankets and heating pads); THAWPIT, LTD. (dry cleaner); HOUSE OF EVANS (electric combs); D. & W. GIBBS, LTD. (dentifrice, shaving-cream and soap); WILKINSON SWORD Co., LTD. (safety razors and cutlery). The exhibition remains open until April 17.

Personalities

MR. F. R. ADAMS, Ph.C., Spilsby, has been elected to the committee of the local tradesmen's association.

MR. E. JOHNSTON, chemist and druggist, Harleston, has been appointed a justice of the peace for Norfolk.

MR. C. B. SAUNDERS, chemist and druggist, Braintree, has been elected chairman of the local chamber of commerce.

MR. W. W. PRING, chemist and druggist, Bromley, has been elected a member of the council of the local chamber of commerce.

MR. ARTHUR MORTIMER, barrister-at-law and pharmacist, has been appointed secretary to the Wholesale Drug Trade Association.

MR. STANLEY JOHNSON (Wright, Layman & Umney, Ltd.) has removed from Sherwood to 47 Mona Road, West Bridgford, Nottingham.

MR. DOUGLAS C. BEATON, son of Mr. Edward Beaton, chemist and druggist, Hampstead, London, N.W., has passed the Final examination of the Society of Chartered Accountants.

"LES colloïdes au point de vue biophysique et thermodynamique" is the title of an article by Mr. Victor Cofman, chemist and druggist, in a recent issue (No. 70) of "Revue Générale des Colloïdes."

MR. CHARLES ABERNETHY, Ph.C., the newly elected president of the Ulster Retail Drug Trade Association, has



MR. C. ABERNETHY, PH.C.

been in the business all his life. After leaving school he joined his father, the late Mr. Campbell B. Abernethy, R.D., in 1890, at Albert-bridge Road, Belfast, and three years later he qualified as R.D. Since the death of his father he has carried on the business, and he was one of those who became pharmaceutical chemists a few years ago. Mr. Abernethy has long taken an active part in pharmaceutical politics in Ulster, being a member not only of the U.R.D.T.A. but of the Chemists' and Druggists' Society of Ireland. A serious illness last year kept

him out of the chair of the U.R.D.T.A., to which he has now succeeded amid the good wishes of his friends.

MR. JOHN DOLBEAR, J.P., Ph.C., who has been vice-chairman of the Oxford Board of Guardians and chairman of the House Committee for many years, has been appointed a member of the Public Assistance Committee.

THE directors and staff of the London office of Graesser Monsanto Chemical Works, Ltd., welcomed Mr. John D. Gillis, who was recently appointed vice-chairman of the English company, at a dinner at the Hotel Belgravia, London, S.W., on March 18.

MISS G. A. MILNER, chemist and druggist, eldest daughter of Mr. J. Milner, chemist and druggist, Greenwich, London, S.E.10, has been appointed pharmacist at the Victoria Hospital, Damascus, under the Edinburgh Medical Missionary Society. Miss Milner leaves England on April 25.

MISS KATHLEEN DALE, chemist and druggist, daughter of Councillor J. A. Dale, chemist and druggist, Stoke-on-Trent, has been appointed dispenser in charge of the Cutler Boulter Dispensaries of the Oxford Municipal Charities. The chairman of the board of directors is Mr. H. C. Goodall, chemist and druggist (Dolbear & Goodall, chemists), Oxford.

Marriages

BOSMAN—FURNESS.—At Johannesburg, South Africa, recently, John Bosman to Phyllis Marjorie, daughter of Mr. T. E. Furness, chemist and druggist.

Deaths

ABEL.—At Pontypool, on March 14, suddenly, Mr. Edward Thomas Abel, chemist and druggist. Mr. Abel qualified in 1911.

HASLETT.—On March 22, suddenly, Mr. William Haslett, R.D., Annadorn, Knockvale Park, Belfast. Mr. Haslett passed the Registered Druggist examination of the Pharmaceutical Society of Ireland in 1895, and for many years carried on business in Ormeau Road, setting up branches in Bradbury Place and elsewhere. Some years ago he decided to devote himself to the grocery department. He was a member of the Committee of the Chemists' and Druggists' Society of Ireland for a lengthy period, and filled the office of president. He was an associate of the Pharmaceutical Society of Northern Ireland. The funeral took place at Loughinisland.

HENRY.—In Dublin, on March 23, Professor Augustine Henry, M.A., F.L.S., late Professor of Forestry at University College, Dublin, aged seventy-two. Professor Henry was known principally by the remarkable collections of botanical specimens which he sent at various times from China and the Far East to Kew Gardens. His exploration of the flora of China began in 1882, when he was appointed medical officer to the Customs station at Ichang. At that time he held the diploma of the Royal College of Physicians of Edinburgh. Professor Henry returned to Europe in 1900, and was Reader in Forestry in the University of Cambridge from 1907 to 1913. Jointly with H. J. Elwes he was the author of "Trees of Great Britain and Ireland." His second wife was the eldest daughter of the late Sir Lauder Brunton, Bt., the well-known consulting physician.

MANSON.—At 50 Comiston Road, Edinburgh, on March 15, suddenly, Mr. William Mackenzie Manson, M.P.S., chemist and druggist, 396 Morningside Road. Mr. Manson qualified in 1884.

TURNER.—At Carrick-on-Suir, on March 16, Mr. John Tyrie Turner, M.P.S.I. Mr. Turner passed the Licence examination in 1895.

TWIGG.—Recently, Mr. Paul O'Brien Twigg, chemist and druggist, 33 Broadway, Shanghai, China. Mr. Twigg qualified in 1889.

UNGERER.—On February 27, Mr. William G. Ungerer, president of Ungerer & Co., New York, aged sixty-one. Mr. Ungerer was born at Rochester, New York, and was educated in Paris. He was the first American to work as a student in the Grasse perfume-materials plants. In 1901 he incorporated the present firm of Ungerer & Co., succeeding his father. Mr. Ungerer was a leader in the scientific development of the American perfume industry. He was the founder of the "American Perfumer." In recognition of his assistance to the French people during and after the world war he was made a Chevalier of the Legion of Honour.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

L/173. Allison's West Indian Tincture	A/243. Idol ointment
B/123. D. & S. Laboratories (present address), makers of Ep-Prol	A/253. Mesterol (surgeon's plaster)
B/183. Dr. Lynn's Specific	S/223. Mistin (milk preservative)
T/213. Humagsolan (present address)	M/253. Myrurgia perfumes
	E/263. Richard's eye water
	M/213. Uroselectan

Observations and Reflections

By Xrayser III

Mixed Impressions

must affect many of your readers on perusing the draft Pharmacy and Poisons Bill, which is the belated outcome of the labours of the Departmental Committee (*C. & D.*, March 22, p. 359). There is much to be said in favour of separating consideration of the practice of pharmacy from that of the sale of poisons; but the two have been so closely intermingled since 1868 that it seems strange to have them thus suddenly separated and dealt with as though they had no necessary connection. That they have a connection, and that a very close one, is too obvious to require stressing. There is no getting away from the fact that those engaged in the practice of pharmacy have proved themselves by long experience to be the only persons fully competent to safeguard the public as distributors of poisons. Under the new and somewhat unwieldy style of "authorised seller of poisons," they seem likely, if this Bill becomes law, to continue to be responsible for the supply of most, if not all, of the potent substances at present scheduled as poisons, though their elected representatives will no longer be the guardians of the Schedule or "list of the substances which are to be treated as poisons." The onus will still, however, be cast upon the Pharmaceutical Society to secure compliance by registered pharmacists with the provisions of the law affecting the sale of poisons.

Compulsory Membership

of the Society, for which so many pharmacists have heedlessly clamoured, is to become a reality under this Bill. So effective are the means provided for ensuring compliance in this respect that continued registration as a pharmacist will apparently be contingent upon payment of the membership subscription. Let it be noted that registration as a pharmacist will automatically carry with it membership of the Society for one year, but that the payment of an annual subscription will be necessary to secure retention of one's name upon the register in any subsequent year. Further, those of us who indulge in the luxury of carrying on business as chemists and druggists must have our shops registered, and will be privileged to contribute an additional sum annually to the Society's exchequer as a registration fee. The membership fee must not exceed two pounds and the shop registration fee is not to exceed three pounds, but each of us engaged in retail business may have to pay the Society as much as five pounds per annum. One consolation is that every shop belonging to a limited company or co-operative society sharing our business will be similarly assessed.

A Pharmacy Board,

as proposed by the late Sir William Glyn-Jones (p. 352), could only be set up at the cost of wrecking the Pharmaceutical Society as we know it. Comparison of what Sir William and the Departmental Committee have respectively proposed should tend to a feeling of satisfaction that we have not to face the worst that might happen. As it is, the well-knit and carefully-thought-out scheme presented for our consideration seems to me less drastic and revolutionary in the changes it proposes than we might have anticipated, and I trust your readers will give it the closest possible consideration. We ought to have clear ideas about it and be prepared to take any necessary action in defence of our proper interests.

The Council Election

now imminent provides a suitable opportunity for views on the subject of the report of the Departmental Committee to be tested. Every candidate on this occasion should be expected to state clearly how the report commends itself to him or her, what amendment (if any) of the draft Bill appears to be necessary for our purposes, whether the Bill as a whole ought to be supported or opposed, and what steps should be taken to ensure the matter receiving prompt and

adequate attention. This will enable us to realise whether or not the retiring members who are standing for re-election are competent to represent us properly, while the attackers who seek to supplant them will have an opportunity of showing that they possess a grasp of the situation and are worthy of our consideration as prospective councillors.

As We Turn

the pages of the old herbals we may wonder whether there has ever been any known plant that has not been pressed, at some time or other, into the service of medicine. Even the common daffodil, with its most uncommon beauty, at this moment thrilling us with its proclamation of the return of spring, has been made to yield a contribution to domestic physic. The yellow daffodil is so significant an English flower that it is the most natural thing in the world to see what that very English herbarist, John Gerard, has to say about it. He is at pains to distinguish between what he calls Daffodils (chap. 84) and the "Bastard Daffodils" (chap. 85). Our daffodil, which he names *Pseudonarcissus Anglicus*, is in the latter class. Of the former, he and his editor, Thomas Johnson (edition 1633), describe twenty-four kinds, of which he says: "We have them all, and every of them in our London gardens in great abundance." Gerard's true daffodils embrace all those flowers the most closely akin to the *Narcissus poeticus*; his descriptions of them give point to his remarks concerning the derivation of the name *narcissus*, inasmuch as he makes special reference to their odour as being sweet—"something stuffing the head." He is, therefore, not satisfied by alluding to Ovid's fable of Narcissus at the fountain, but goes on to say that "Pliny & Plutarch affirme . . . that heir narcoticke quality was the very cause of the name *Narcissus*, that is a quality causing sleepiness . . . which properly belongeth to the *Narcisses*, whose smell causeth drowsiness." This must be considered as the accepted derivation, and its origin is clearly in the Greek *ναρκάω* = to grow numb. Gerard states that the decoction of the root, with carminatives, is a useful purgative, and a distilled water of the flowers of our daffodil "doth cure the palsie."

If We Trace

the history of "daffodil" we are again carried back to ancient Greece. In the days of Hippocrates there were two plants used in medicine whose careers in these later times have become curiously commingled in respect of their names. There was a narcissus, probably *Narcissus poeticus*, or a close relation, and there was the asphodel, a plant of considerable importance for purposes of ritual, as well as being useful as a medicine. The botanical affinity of the wild daffodil to the former of these is patent; but by what means can it be suggested that there was at any time any connection between it and the asphodel? The question arises out of the inquiries made by sundry authorities as to the origin of "daffodil." The dictionaries recognise that there was an early form of the name from which the initial letter "d" was missing, and it appeared as "affodylle." In the ME. MSS. upon which Professor Henslowe drew for his book on fourteenth-century remedies, we have the form "affodillies." The etymologists seem to think that these variations give them warrant to assume that "daffodil" is derived from "asphodel" (M. Latin *asphroditillus*), and they regard the "d" as an accretion for which they can furnish no reason. They may be correct, but it must not be overlooked that, as pointed out by Britten, Markham, in the seventeenth century ("English Housewife," 1637) warned his readers that "You must be careful that you take not Daffodil for Affodil." We shall do well to await further light on this difficulty. I will venture to continue my character of cautionary friend by remarking upon the name of "Lent Lily" applied to this plant in many parts of the country. Usually it is regarded as being indicative of a flower typical of the ecclesiastical period in which it blooms. It is forgotten that the word "Lent" is not an ecclesiastical name; it is the OE. name (*lencten*) for the springtime, and our Lent Lilies are the spring flowers *par excellence*.

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JELLIES

Editorial Articles

The Report

The Control of Poisons

THE draft of a Pharmacy and Poisons Bill, incorporated in the Report of the Departmental Committee on the Poisons and Pharmacy Acts, and published in full in our issue of March 22, pp. 359 *et seq.*, introduces so many innovations of a fundamental character that it is necessary to study these proposals in detail in order to arrive at a just appreciation of their implications. For this reason we deem it imperative that attention should be focused on those proposals which most closely affect the interests of chemists and the future of pharmacy, in order that a definite attitude, reflecting the considered opinion of the members of our craft, may be adopted when the time comes for action. We deprecate the suggestions that public discussions of these proposals should be avoided, or that they should be postponed on the plausible but nevertheless possibly deceptive assumption that no immediate action is contemplated. On the contrary, we would call upon every chemist who has the welfare of his craft at heart to contribute his share towards the remodelling of these proposals, so that when the times comes to present our just claims these shall have the effective support of a united body conscious of its rights and also of its duties. The definite separation of pharmacy on the one hand from all matters connected with poisons on the other hand marks the most revolutionary proposal embodied in the draft Bill. First and foremost, we would draw special attention to Part 2 of the draft, which deals with the sale and supply of poisons; and we advise every chemist to study this part with care, not only in his own interest but also in that of the public. We wish to bring home to chemists the realisation that, if this part of the Bill were to be passed in its present form, the entire control of poisons would be, *de facto*, vested in the Home Office—in other words, in a Government Department. We would urge this course in order that the objections to the proposals embodied in this part should be effectively marshalled,

in the not improbable event of an attempt being made to introduce this part of the Bill into Parliament—possibly in an amended form. The Dangerous Drugs Acts are administered by the Home Office, and the public as well as the world at large—through the League of Nations—are kept well acquainted with the successful activities of this Department in suppressing the “dope” traffic; to the bureaucrat the addition of another department for the control of poisons holds out a promise of further extending the scope of its beneficial activities—truly, a rosy prospect even for the most meticulous chemist! True, it is proposed to set up an Advisory Board, to be known

as the “Poisons Board,” but, in PHARMACISTS view of the fact that pharmacists IN A MINORITY are to be in a decided minority on this Board, we take strong objection on these grounds to its proposed constitution. Indeed, many of the proposals embodied in the Report show how the pharmacists on the Committee were overruled. Of the organisations which gave evidence it would appear that ten were likely to be interested in the relaxation of the law on poisons, or in increasing the number of distributors; while four organisations were likely to support greater limitation, or, at least, greater control. Among those who put in memoranda, but were not called, three would be interested in relaxing and one confined itself to suggestions regarding the storage of poisons in institutions. The Committee of inquiry consisted of eleven persons, four of whom would alone possess direct knowledge of poisons and their distribution. It is obvious that the dice were loaded; but from information received, a tribute should be paid to the fairness and courtesy shown in the examination of witnesses, and the Committee exhibited an evident desire to arrive at an equitable solution of a complex problem. This draft Bill sets up two classes of “authorised sellers of poisons,” and the old basis of controlling poisons, entrusted to the Pharmaceutical Society in 1868, is withdrawn on absolutely inadequate grounds. The persons contemplated as poison sellers are:—

1. A registered pharmacist.
2. Certain other persons authorised by local authorities to sell poisons in Part II of the Poisons List.

The Poisons Schedule of the Poisons and Pharmacy Act, 1908, with the subsequent modifications and additions, will be withdrawn. Their place will be taken by a poisons list consisting of Part 1 and Part 2. It should not be assumed that these two parts are comparable with the present Parts 1 and 2 of the Poisons Schedule with their appendices under Sections 2 and 5 of the Poisons and Pharmacy Act, 1908, nor will they affect the present list under the Dangerous Drugs Acts, 1920-25. The scope of these lists will be better understood by quoting the draft Bill. Clause 14 (2) states:—

(a) It shall be unlawful to sell any poison included in Part 1 of the Poisons List to any person unless he is either—

(1) Certified in writing in the prescribed manner and by a person authorised by rules under this Act to give a certificate for the purposes of this section; or

(2) Known by the seller or by some registered pharmacist in the employment of the seller at the premises where the sale takes place, to be a person to whom the poison may properly be sold.

Then follows:—

(b) The seller of any such poison shall not deliver it until—

(i) he has made or caused to be made an entry in a book to be kept for that purpose stating, in the prescribed form, the date of the sale, the name and address of the purchaser and of the person, if any, by whom the certificate required under paragraph (a) of this subsection was given, the name and quantity of the article sold, and the purposes for which it is stated by the purchaser to be required; and

(ii) the purchaser has affixed his signature to the entry aforesaid.

Now from this it is clear that the indefinite terminology “poison” and “its preparations” will be replaced, as suggested in the official exposition, Paragraph 15 in the Recommendations: “That, wherever possible, generalisation be avoided in the ‘Poisons List,’ and the poisons therein individually and specifically defined.” It is not clear that the Committee understood the complications of “what is the poison” or “preparations,” “preparations of,” or “preparations containing,” but as it is not in the draft Bill, it may be taken that it is a suggestion which will serve to guide the Poisons Board in deciding how to set out clearly a very complicated problem. An examination of the C. & D. Poisons Card No. 2 (Extended List of Poisons) shows out of 1,500 poisons or preparations mentioned only 450 come within the present Part 1 of the Poisons Schedule, which leaves 1,050 for Part 2, and that is by no means complete. It would be gratuitous to assume what will be the decision of the Poisons Board on any single item,

but it is clear there are over two thousand articles termed minor poisons or preparations containing poisons which could not be included in Part 1 of any poisons list in which it is necessary to employ the safeguards set out in the quotations given above. A simple case in point would be “asthma powder,” which at the present time is in Part 2 of the Poisons Schedule, but no one in his senses would dream of including it within the Poisons List, Part 1, as constructed on the aforesaid basis. It would be contrary to the general policy in the interests of the community and go into Part 2, which other “authorised sellers of poisons” would be at liberty to sell, subject, of course, to the suggested restrictions. The publicity side of the Departmental Committee in dealing with this in the public Press said that the “poisons law was to be strengthened.” It is a strange growth in strength which makes it possible to distribute poisons by vendors who have no expert knowledge and can only treat them as ordinary merchandise. There will be at least 300 different licensing authorities, so how can anyone expect reasonable safeguarding of poisons? If this is not destroying the very foundation of control in selling poisons, it would be extremely interesting to know what is. It has been bravely put to us by apologists for this draft Bill that these poisons lists would be so drawn as not to extend the present schedules as expressed under Sections 2 and 5 of the Poisons and Pharmacy Act, 1908. But have the apologists seriously pondered over the strict regulations in selling under Part 1 of the draft Bill? Common sense alone should save them from assuming that such

regulations, devised for Part 1 of the poisons list, could ever be applied to the 2,000 preparations containing varying amounts of poisons, suitable in dilution, but still potent enough to do considerable harm. It is possible to indicate how amendment to this poisons list can be made effective; we hope to do so later on, but, for the present

PROMISCUOUS RELAXATION OF SAFEGUARDS moment, it is sufficient to analyse this draft Bill, which is, if not to introduce free trade in poisons, to make it easier to get poisons than

under the system which has prevailed in this country for sixty years. It is clear that every drug-store would be able to sell a very large number of poisons, and perhaps this is the price to be paid for gaining the place name "pharmacy." Further, there is a possibility that two classes of pharmacist might easily come into being, one being the registered pharmacist, a member of the Pharmaceutical Society, and the other a certified pharmacist who has qualified but not registered; the former would be an "authorised seller of poisons," but the latter would be left at a loose end, void of attachments and not permitted to sell poisons save under supervision, though he would have been trained for the purpose. But this brings in "pharmacy," which for this discussion is better kept apart. Further modifications are put forward in Clause 15, which provides for distribution subject to more regulations in the forms of supply:—(1) By wholesale dealing, which is defined; (2) export to purchasers abroad; (3) for use in hospitals and similar institutions approved by the Secretary of State; (4) for use in a person's trade, business or profession; (5) in respect of medical treatment of persons employed by a person in any trade or business; (6) by a Government department or officer, or local authority requiring the same; (7) in science, education or research where poisons are required. Further, in Clause 17, the Secretary of State takes power, after consultation with the Poisons Board, to make rules with respect to the manufacture of pharmaceutical preparations containing poisons or the sale, wholesale or retail, or the supply of poisons by or to any persons or classes of persons (*including persons entitled to sell poisons included in Part 2 of the poisons list by virtue of their names being on a specified list*), and for prescribing anything which under this Act is to be prescribed, and without prejudice to the generality of the power provided in the previous sections. Part of subclause (b) of this clause reads:—"For dispensing with or relaxing in the case of any poisons or any class of poisons any of the provisions imposed by Part 2 of this Act with respect to the sale of poisons: (1) the storage, the transport, and the labelling of poisons; (2) the containers in which poisons may be sold or supplied; (3) the compounding and dispensing of poisons." This last section covers Part 2 poisons, but the Secretary of State—after consultation with the Poisons Board—possesses such power that even compounding and dispensing of Part 2 poisons may ultimately be permissible if sufficient pressure is brought to bear. The section covering other authorised poison sellers becomes of sufficient import to examine carefully the constitution of the Poisons Board and its relationship to the Secretary of State. It is so important that it will be better to deal with it separately. Meantime, chemists should awaken to the importance of

these revolutionary proposals put forward under the guise of consolidating the pharmacy and poisons laws. The above is enough to induce caution in the mind of every pharmacist before giving even a qualified assent to any proposition which may have committal value. The other points we hope to deal with in our following issues, pointing out the dangers of this transfer of control to the Secretary of State for Home Affairs, and how few safeguards are left to chemists in the conservation of their ancient rights and privileges.

The Fall in Bismuth

As mentioned in THE CHEMIST AND DRUGGIST Trade Report of March 22 (p. 371), a reduction of 2s. 6d. per lb. was made in the official price of metallic bismuth (as notified by the representatives of the Bismuth Association) down to 5s. per lb. This action caused but little surprise in trade circles as it had been rather expected for some time past, and thus fully confirmed the view which was expressed in an editorial on increasing bismuth production in the issue of January 11 (p. 46). It is interesting to note that the current figure is the same as that established in December 1924, in which year several reductions were made by the Syndicate, first from 10s. to 7s. 6d., then to 6s. in November, and 5s. in December. The latter figure compares with about 12s. 6d. per lb. the first time recorded, in the earlier part of the war-period, when there was a great pressure of demand for medicinal purposes, and the available supply was rapidly reduced. In the year 1924 the Syndicate found themselves saddled with a heavy accumulation of supplies, but apparently this accumulation at the low price was easily taken care of, which resulted in a renewed steady advance in the price up to the extreme figure of 12s. 6d. again seen a year later, or in December 1925. There is little doubt that at the current price of 5s. the outlet with bismuth salts manufacturers will be appreciably stimulated, and thus make for a healthier position, but it seems hardly likely, that, even assuming that the present surplus is eventually disposed of, history in the way of a renewed upward movement will repeat itself to the same extent. Within the last two years or so, the position of the bismuth industry has changed a good deal, in so far as there has been a certain expansion of new sources of production with an increase in the proportion emanating from sources outside of the Syndicate, so that the control of the world's markets has been to that extent made less effective in spite of certain working arrangements in force with the Association of Manufacturers of Bismuth Salts. It is a well-known fact that the latter were to some extent handicapped by bismuth being obtained from outside sources at well under the Syndicate's fixed price. What has happened in the way of increased and new production chiefly refers to North America, and was fully dealt with in our editorial referred to, in which particular allusion was made to the putting into operation of the plant of the Consolidated Mining & Smelting of Canada, at the Trail in British Columbia. The output of this plant, which commenced in the latter part of last year, is proceeding at the rate of about two and a-half tons a month, and this may be regarded as an important item. A large portion of this bismuth is probably finding its way into the United States, the largest consuming country, which, however, is becoming gradually self-supporting due to its increased domestic output. This has been largely responsible for the fact that the Association price in America has been usually undercut for some considerable time past by independent producers. As to the future of bismuth, there is undoubtedly room for a widening of the outlet at a reasonable price.

Result of the "C. & D. Diary" Competition

SEVERAL years have elapsed since *The Chemist and Druggist Diary* included as an inset a competition open to subscribers, their staffs and their families. It has given us much pleasure to revive this once familiar feature in our issue for the current year and to note the ready response. Cards have arrived in considerable numbers, not only from the United Kingdom but also from Canada, China, Cyprus, Egypt, Irish Free State, Italy, Luxembourg, South Africa, the Straits Settlements and Trinidad.

There were two cards to be filled in. Card 1 comprised the following questions :—

1. Vote for the business house amongst those mentioned in the Trade Directory (pp. 131-140) you consider most popular in the trade.
2. Name a business house you consider popular whose name does not appear therein.
3. Mention the advertisement in the *Diary* which you think should bring a chemist most profit.
4. Which is the most artistic advertisement in the *Diary*?
5. What speciality advertised in the *Diary* do you consider the best seller?

Card 2 was allotted to a synthetic sentence of not more than sixteen words about the *Diary* for 1930 or its contents, which sentence was to be composed of words selected from the *Diary* advertisements.

Analysis of First Card

The first step in arriving at a decision on the competition was to ascertain the verdict in respect of each question on this card. The winning house in Question 1 is Allen & Hanburys, Ltd.; The British Drug Houses, Ltd., are a close second; and S. Maw, Son & Sons, Ltd., tie with May, Roberts & Co., Ltd., for the third place.

The replies to Question 2 give the United Chemists' Association, Ltd., first in order; the votes for Yardley & Co., Ltd., are nearly as numerous; and the next two in frequency are Kodak, Ltd., and A. Wander, Ltd.

Question 3 has almost resulted in a tie between Parke, Davis & Co.'s Euthymol tooth-paste and the Beecham-Veno lines, the former winning by one vote; the announcement of Mr. C. A. Scurr takes the third place.

On Question 4 there is a remarkable consensus of opinion, a large majority of competitors favouring the inset of the International Bottle Co., Ltd., and some mentioning in particular the second page of this inset. The next in order of approval is another inset, that of W. J. Rendell, Ltd.

Question 5 reveals more diversity in the replies. The leading speciality is Aspro; the second, which obtains about 82 per cent. of the number of votes accorded to the winner, is Beecham's Pills; the third is Euthymol tooth-paste; and the fourth Eno's Fruit Salt.

No competitor answered all the five questions according to the majority verdict; but four competitors answered four questions correctly, and to each of these a prize of one guinea is awarded. They are :—

Dr. A. J. Barnes, L.P.S.I., 64 Hatton Garden, London, E.C.1.

Mr. C. E. Bell, 46 Hamilton Road, Felixstowe.

Mr. A. F. Courcha, 255 Mortlake Road, Ilford.

Mr. Arthur Pratt, 17 College Parade, Brondesbury Park, N.W.6.

Three of these competitors agreed with the majority on Questions 1, 2, 4, 5, and the fourth was at variance on Question 5.

Analysis of Second Card

Card 2 evoked fewer replies than its companion, and not many of these rose above the average wording of appeals to the public. One of the neatest is :—

Build up your business as I have this synthetic with the help of the *Diary* 1930. (Mr. L. I. Channon, 67 Church Street, Highbridge.)

One of the most ingenious is in the form of an anagram :—

British Drug Houses, Ltd.

Eno, J. C., Ltd.

Sturge, J. & E., Ltd.

Thermogene Co., Ltd.

Duncan, Flockart & Co.

Illingworth, T., & Co., Ltd.

Allen & Hanburys, Ltd.

Raimes, Clark & Co., Ltd.

Youlton, F.

Oppenheimer, Son & Co., Ltd.

Newball & Mason, Ltd.

Espanol Co.

Agfa, Ltd.

Reuter, R. J., Co., Ltd.

Toogood, W., Ltd.

Harley, T.

(Mr. H. M. Robin, 16 Leven Street, Edinburgh.)

The one which, perhaps, remains most readily in the mind is in rhyme :—

Chemist and Druggist Diary

Inspires something new,

Ready answer to inquiry,

Golden profits will ensue.

(Mr. J. J. Fitzgibbon, The Sandycove Pharmacy, Kingstown, co. Dublin.)

Others having good points are as follows :—

Firms desirous of developing their business don't miss advertising in *The Chemist and Druggist Diary*. (M. J. M. Michel, 12 rue des Capucins, Luxembourg.)

In trade this book is essential to the chemist as armour was to the old knight. (Mr. B. H. Butler, 195 London Road, Reading.)

Incomparable as guide, universal in service, paramount as advertising medium, essential to the enterprising chemist. (Mr. J. E. C. Moss, 51 Rudloe Road, London, S.W.12.)

To each of these six a prize of half-a-guinea is awarded. Consolation prizes of 5s. each are awarded to :—

Dr. A. J. Barnes, L.P.S.I., 64 Hatton Garden, London, E.C.1.

Mr. J. C. Dickinson, 18 King's Road, St. Leonards.

Miss P. G. Harris, "Lindfield," Abington Park Parade, Northampton.

Mr. J. Harrison, Box 508, Cape Town, South Africa.

Mr. H. E. Marks, Lavalle 1268, Buenos Aires, Argentine Republic.

Mr. J. Milne, Berryden Road, Aberdeen.

Mr. D. Milnes, 39 Bradford Road, Brighouse.

Mr. L. Morgans, 76, Drury Road, Harrow.

Mr. R. Morrow, Conway Square, Newtownards.

Mr. G. R. Moulds, Hyde Park Pharmacy, Leeds.

Mr. H. Robinson, 25 South Street, Keighley.

Mr. D. Saunders, 142 Cowbridge Road, Cardiff.

Mr. J. T. Walters, 13, Old Street, London, E.C.1.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garhling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, March 27.

ALTHOUGH there is a tendency for many articles to resist further fall in values, business still remains quiet, the shadow of the Budget being generally cast over the markets; but it is anticipated that things will improve when it is known what is in store. Few changes have occurred in crude drugs. Agar-agar, cascara sagrada are firm. Areca nuts are scarce on the spot. Kola nuts are neglected. Damiana is dearer. Menthol and Japanese dementholised peppermint oil are inactive and unchanged. Essential oils generally are not in any great demand, but Sicilian citrus oils are firmer for shipment. Clove oil may be dearer, as cloves are very firm. Fixed oils continue quiet; palm oils are steady, and linseed oil is weak. Slow markets are reported in the pharmaceutical chemicals group; quoted prices are maintained, but a number of markets are unsteady. Business is disappointing in industrial chemicals. In the metal group, arsenic is slow, and cadmium maintains a firm tone. Mercury is slightly easier in the open market.

Higher	Firmer	Easier	Lower
Damiana	Citrus oils (Sicilian) (c.i.f.)	Geranium oil (Bourbon) Mercury Peppermint oil Senega	Antimony (Eng. reg.) Bismuth salts Cassia oil Ipecacuanha Orange peel Pimento Wormseed oil

Cablegram

BERGEN, March 25.—The catch of cod now amounts to 30,483,000, against 42,345,000 at the corresponding period of last year, and the yield of steam-refined non-freezing oil is 38,036 hectolitres, against 56,047 hectolitres at the same period last year. The market is quiet.

Crude Drugs, etc.

AGAR-AGAR is firm, Kobe No. 1 offering at 3s. 8d., Kobe No. 2 at 3s. 4½d., and Yokohama No. 1 at 3s. 4½d. c.i.f. On the spot Kobe No. 1 is 4s. 3d. per lb., and for both Kobe No. 2 and Yokohama No. 1, 4s. per lb. spot is quoted.

ALKANET ROOT is quoted at 48s. per cwt. on the spot for Hungarian and at 43s. c.i.f.

ALOES.—Curaçao on the spot is quoted at from 115s. to 135s., and offers at 110s. c.i.f.

ANTIMONY.—The market has not been active but is somewhat firmer, which is attributed to a stronger technical position on the Continent, where evidently short sales have to be covered. Spot prices here for Chinese regulus range upward of £29 10s. There was a further reduction made in English high-grade regulus now standing at £46 to £46 10s., and other brands are obtained down to about £40. Chinese crude on the spot 70 per cent. is called £24 to £24 10s., and Chinese white oxide ranges from £33 10s. to £34 per ton.

ARECA NUTS are very scarce on the spot at 52s. 6d.

ARSENIC.—The demand is still very slow and the nearest quotation is £15 15s. per ton f.o.r. mines for 99 per cent Cornish powder. Mexican high-grade is offering at about £16 10s. to £17 c.i.f. Liverpool.

BAEL FRUIT is quoted on the spot at 45s.

BALSAMS.—Genuine Peru is quoted at from 6s. 8d. to 7s. per lb. spot, according to seller. Tolu is 3s. 10d. per lb. spot. Canada is 5s. to 5s. 3d. per lb. spot.

BELLADONNA ROOT is quoted at from 56s. to 57s. 6d. per cwt. on the spot according to test. Leaves are rather scarce for good quality at 65s. per cwt.

BUCHU is quoted at 1s. 1d. for good green rounds and at 10½d. for ovals.

CADMIUM.—There has been no change in the market, which, however, maintained a firm tone. There is quite a good demand on the spot, and producers' agents are asking 3s. 11d. to 4s. per lb. Parcels on the Continent, however, can be secured a little more cheaply.

CALUMBA, for fair quality, is offered at 30s. per cwt. c.i.f.

CASCARA SAGRADA is very firm, 1924 peel offering at from 75s. to 77s. 6d. per cwt. on the spot, 1927 peel at 72s. 6d. per cwt. spot, and 1929 crop at 68s. per cwt. spot.

CHIRETTA is quoted at from 7½d. to 8d. per lb. spot.

COPPER SULPHATE.—The export trade demand drags on, but prices are firmly held as the cost of rough bar copper has again advanced considerably. British makers are asking £26 10s. to £27 f.o.b. for casks less 5 per cent.

DAMIANA is dearer at 9½d. to 10d. per lb. on the spot, and supplies are limited.

HYDRASTIS is quoted on the spot at from 10s. 6d. to 10s. 9d. per lb. spot.

IPECACUANHA.—Matto Grosso is cheaper at 13s. per lb. for fair quality.

MENTHOL is inactive and unchanged at 14s. 6d. per lb. spot for Kobayashi-Suzuki, and for March-April shipment 14s. per lb. c.i.f.

MERCURY.—The position of the open market has been, if anything, rather easier, due to some keen competition from a certain quarter, and quotations range from about £22 10s. to £22 15s., less 3 per cent. on the spot. There has been, however, no change in the quotations named by the agents of the Combine. These stand at £22 5s. for small lots up to 10 bottles, and £22 2s. 6d. for 11 bottles and upward, all net delivery ex-stock. The f.o.b. price for shipment from the mines has remained at £21 15s. for not less than 25 bottles, and the discount is allowed for big quantities. The outlook seems a little uncertain, but there is reason for believing that competition outside of the Combine does not amount to a great deal. Consumers, however, seem content to cover themselves from hand-to-mouth.

ORANGE PEEL.—More Maltese machine-cut new crop is being offered at from 8d. to 9d. Old crop seems to be in better demand at from 6d. to 8d. per lb.

RUBBER is slightly firmer on balance. During the earlier part of the week there was fair activity, and prices all round were a shade harder, "off" grades especially fetching full prices. From cabled information, shipments from the East to all parts, for the first half of March, are estimated at between 24,000 and 26,000 tons, and for the whole month 44,000 tons. If this latter figure proves about accurate, production is still overlapping consumption to a marked degree. Last week arrivals totalled 2,751 tons, whilst deliveries were 1,232 tons, showing a further increase of 1,519 tons in the stocks. The London stock now stands at 68,404 tons, against 27,656 tons at the corresponding period last year. The Liverpool stock now stands at 21,137 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard ribbed smoked sheet, spot and April, 7½d.; May, 7½d.; June, 7½d.; July-September, 8 d.; October-December, 8½d. per lb.

SEEDS.—ANISE.—Spanish is 65s. and Russian 31s. per cwt. spot. CANARY.—Mazagan old crop 28s. spot. Morocco (f.a.q. 4 per cent.) has been sold at 26s. spot. For shipment Morocco is quoted at 25s. c.i.f. FENUGREEK.—Morocco is 17s. 6d. spot, and for shipment 16s. 9d. c.i.f. is now quoted. Tunisian, 18s. 6d. spot. CUMIN.—Malta on spot is unchanged at 70s. Morocco remains firm at 58s. spot and also 58s. c.i.f. CORIANDER.—Business has been done for April-May shipment at 8s. 3d. c.i.f., while on spot business has been passing at 7s. 6d. It is reported that about 1,700 bags have been sold on spot. MUSTARD.—English on spot is dearer, owing to New York buying, 28s. 6d. to 35s., according to quality.

SENEGA is not much in demand, and is weaker at from 3s. 8d. to 3s. 9d. per lb. spot.

SULPHUR.—The tone is very steady with a moderate demand for American crude, and quotations stand at £5 12s. 6d. to £5 17s. 6d. Sicilian flowers are held for £12 5s., refined ground for £11, and roll for £9 15s., all c.i.f., to arrive. An estimate of the European output was circulated for 1930 at about 350,000 tons, which would show an increase of 50,000 tons against last year.

TAMARINDS.—West Indian new crop is now arriving, and Barbados are offered at 57s. 6d., duty paid. No Antiguas are available.

TURPENTINE.—The tendency of the market has been towards improvement, due to a rather more active trade demand both in America and on this side, while quotations at Savannah took a sharp upward turn. London deliveries last week were good at 2,039 barrels, making a total since January 1 of 21,267 barrels, this comparing with 20,787 barrels for the same period last year. Stocks were reduced to 23,956 barrels, which represents the London visible supply, as against 22,731 barrels a year previous. The position of the market is considered very healthy.

Resin.—The demand is still on the slack side, and buyers are simply looking on pending further developments as regards the new crop outlook. American stocks are reported to be somewhat lighter. C.i.f. terms for shipment from America are as follows:—American B/D, 15s. 4½d. to 15s. 9d.; E/F, 16s. 6d. to 17s. 6d.; G/I, 17s. 7½d.; K/M, 18s.; W/G, 18s. 4½d.; and W/W, 19s. Prices for French grades have fallen further, and W/W is now quoted 16s. 10½d.

Essential Oils

The general trade demand has not been good. Anise is neglected and there are no forward offers. Cassia is lower. Japanese dementholised peppermint is inactive. Sicilian citrus oils to come forward are slightly firmer, while Californian citrus oils are unchanged.

ANISE (STAR).—"Red Ship" is neglected at 3s. 10½d. per lb. for leads and at 3s. 9d. per lb. for tins on the spot. There are no forward offers.

BERGAMOT is firmer at 10s. 9d. per lb. c.i.f. and at 11s. 6d. per lb. spot.

BOIS DE ROSE.—Brazil is offered at from 3s. 6d. to 3s. 9d. per lb. spot, and Cayenne at 5s. 3d. to 5s. 6d. per lb. spot.

CAJUPUT is quoted at 2s. 8d. per lb. for bottles in cases.

CANANGA is quoted at 9s. 6d. per lb. spot.

CASSIA is lower on the spot for 80-85 per cent. at 3s. 10½d. per lb., and 3s. 4½d. per lb. c.i.f.

CITRONELLA.—Ceylon is quoted on the spot at 2s. 4½d. per lb. and Java at from 2s. 5d. to 2s. 6d. per lb.

GERANIUM.—The market is dull, and Bourbon is quoted on the spot at from 15s. 9d. to 16s. per lb. Algerian is scarce on the spot and is quoted at from 17s. to 18s. per lb., according to seller. There are no forward offers.

LAVENDER is dull on the spot and 38-40 per cent. is quoted at 13s. per lb., with lower testing at from 11s. to 12s. per lb. spot.

LEMON is firmer and higher prices are quoted for forward shipment. Hand-pressed is offered at from 4s. 6d. to 4s. 9d. per lb. c.i.f., and machine-made at 3s. 9d. to 4s. per lb. c.i.f. On the spot 5s. and 4s. 2d. per lb. respectively is quoted. There appears to be qualities offered at prices between the sponge-pressed and machine-made at 4s. to 4s. 6d. per lb. c.i.f., and buyers of these qualities can be sure of getting what they pay for.

LEMONGRASS is quoted on the spot at 2s. 10d. per lb.

ORANGE.—Both bitter and sweet Sicilian are firm at 10s. per lb. c.i.f., and at 10s. 6d. per lb. spot. Jamaica sweet is quoted at 9s. 6d. per lb. spot. Californian oil is unchanged.

PATCHOULI.—Singapore is quoted at from 19s. 6d. to 20s. per lb. spot, and Seychelles at 16s. per lb. spot.

PEPPERMINT.—American natural oil is quoted at 11s. 6d. per lb. o.i.f. in drums, and at from 11s. 9d. to 12s. per lb. c.i.f. in cases. Japanese dementholised is unchanged at 4s. 9d. per lb. for Kobayashi-Suzuki on the spot, and to arrive 4s. 6d. per lb. is quoted for March-April shipment.

SASSAFRAS is inactive at from 5s. to 5s. 6d. per lb. spot.

SPEARMINT to come forward is quoted at 17s. 6d. per lb. c.i.f., and on the spot at from 18s. 6d. to 19s. 6d. per lb. according to quantity and seller.

VETIVER.—Bourbon is quoted at from 16s. to 17s. per lb. spot.

WORMSEED (CHENOPODIUM) is quoted at 14s. per lb. spot.

The following arrivals have taken place from the countries indicated during the period March 12 to March 18 (inclusive): Anise (Fr.) 11 cs., (Ch.) 5 dm., (H.-K.) 20 cs.; basil (Sey.) 1 cs.; bergamot (Sp.) 1 cs.; citronella (Cey.) 9 dm. 12 cs.; eucalyptus (Aust.) 5 dm.; geranium (Fr.) 1 cs.; lavender (Fr.) 1 cs.; lemon (It.) 293 cs., (U.S.) 100 cs., (Sp.) 21 cs.; orange (It.) 4 cs., (U.S.) 5 dm., (Sp.) 2 cs.; patchouli (Sey.) 2 cs.; peppermint (U.S.) 32 dm. 5 cs., (Jap.) 65 cs., (Fr.) 3 cs.; pine (Ger.) 1 cs.; rosewood (Braz.) 6 dm.; sandalwood (Aust.) 48 cs., (Br. Ind.) 3 cs.; undescribed (Sp.) 63 cs., (It.) 2 cs.

The following arrivals have taken place from the countries indicated during the period March 19 to March 25 (inclusive): Almond (U.S.) 3 cs.; anise (Fr.) 25 cs.; bergamot (It.) 29 cs.; cananga (Java) 4 dm.; caraway (Neth.) 6 cs.; cinnamon (Cey.) 1 dm.; clove (Ger.) 5 dm.; geranium (Fr.) 5 cs., (Alg.) 3 dm.; juniper (U.S.) 19 cs.; lavender (Fr.) 12 cs.; lemon (It.) 138 cs.; lemongrass (Br. Ind.) 4 dm.; lime (B.W.I.) 2 cs.; patchouli (Str.) 1 cs.; peppermint (Jap.) 160 cs., (Fr.) 8 cs., (U.S.) 2 dm.; pimento (Ger.) 1 dm.; sandalwood (Ger.) 4 cs.; spike (Sp.) 2 dm.; undescribed (Fr.) 16 cs., (It.) 23 cs.

Pharmaceutical Chemicals, etc.

DISTINCTLY slow markets are reported from all quarters. Quoted prices are just about maintained, due to the many price conventions, but some holders appear to be willing to cut in order to secure business. So far these slight movements have not affected the market generally, but it cannot be denied that quite a number of markets are decidedly unsteady.

ACETANILIDE remains quiet with prices unchanged: B.P. crystals and powder, 1s. 4½d. to 1s. 6d. per lb., according to quantity.

AMIDOPYRIN is unchanged on spot with the market dull: crystals, five cwt., 12s. 9½d.; two cwt., 13s. 0½d.; less than two cwt., 13s. 3½d.; powder, 1½d. per lb. more in all cases.

ASPIRIN.—This market is keeping steady and business has been moderate: home trade, 2s. 9d. to 2s. 11d. per lb. as to quantity; export to British Colonies and Possessions, ten cwt., 2s. 8d. up to 2s. 9½d. per lb. for small parcels f.o.b.; export prices to other destinations, about ¾d. per lb. more. Home and Continental makers are quoting at these prices.

BARBITONE remains dull with spot offers quoted at about 7s. 3d. to 8s. per lb. as to quantity; some holders may be accepting slightly less.

BENZOIC ACID (B.P.) is moving fairly well, with prices for quantities about 2s. per lb. ex works.

BENZONAPHTHOL continues to be quoted on spot by dealers at 2s. 10d. to 3s. per lb.

BISMUTH SALTS.—The reduced prices of bismuth salts are as follows:—

	Under 8 lb.	8 to 27 lb.	28 lb.	1 cwt.
Carbonate ..	s. d. 9 6	s. d. 8 3	s. d. 7 9	s. d. 7 6
Citrate ..	9 6	8 3	7 9	7 6
Nitrate cryst.	7 0	5 9	5 3	5 0
Oxide ..	11 6	10 3	9 9	9 6
Salicylate ..	10 9	8 0	7 6	7 3
Subchloride ..	10 9	9 6	9 0	8 9
Subgallate ..	9 3	8 0	7 6	7 3
Subnitrate ..	8 6	7 3	6 9	6 6

Liquor bismuthi B.P.: W.qts., 1s. 2d. lb.; 6 W.qts., 11½d. lb.; 12 W.qts. 10d. lb.; 36 W.qts., 9½d. lb.

For sales for prompt delivery and not less than two cwt., assorted or otherwise, and for contracts, if completed or paid for within three months, a rebate of 3d. per lb. off the above prices will be allowed.

BROMIDES.—There is no change to record here; business has been only moderate: dealers quote ammonium, 1s. 9½d.; potassium, B.P. crystals, 1s. 5d. to 1s. 5½d.; granular, about 1s. 5d.; sodium, B.P., about 1s. 8½d. per lb. for quantities. Home makers' list prices are unchanged, while their selling prices are competitive with dealers': ammonium, 2s.; potassium, B.P. crystals, 1s. 8d.; granular, 1s. 7d.; sodium, B.P., 1s. 11d. per lb.

CALCIUM LACTATE continues in the region of 1s. 2d. to 1s. 4d. per lb. as to quantity; some offers may be slightly cheaper.

CHLORAL HYDRATE is quoted by home makers at 3s. 1d. to 3s. 3d. per lb. for duty-paid crystals; foreign on spot, 3s. 6d.

CITRIC ACID (B.P. crystals).—Quoted prices are at about the reduced figure reported last week with the market very flat: home make, 1s. 8½d. per lb., less 5 per cent. for quantities, carriage paid; foreign, to arrive, about 1s. 9d. o.i.f., less 5 per cent.

CREAM OF TARTAR has been quiet all the week; the market is unsteady, with quotations about 9s. to 100s. per cwt., less 2½ per cent., for quantities of foreign powder.

CREOSOTE (B.P.) is steady on a slow market at 1s. 8d. to 1s. 9d. per lb. as to quantity.

CREOSOTE CARBONATE remains dull, with dealers offering spot at 5s. 8d. to 6s. per lb. as to quantity.

GUAIACOL CARBONATE is in little request, dealers quoting spot at about 4s. 6d. to 4s. 10d. per lb. as to quantity.

HEXAMINE is moving fairly well, with outside material at the lower rates of 1s. 10½d. to 2s. per lb., while Convention prices are maintained at 2s. 2½d. to 2s. 4d. per lb. as to quantity.

HYDROQUINONE.—The scale of prices has been revised: one ton, 3s. 7½d.; ten cwt., 3s. 8½d.; five cwt., 3s. 9½d.; two cwt., 3s. 10½d. up to 4s. 5½d. per lb. for seven-lb. parcels.

LACTIC ACID (B.P.) is steady as quoted for quantities in carboys at 1s. 7½d. per lb.

METHYL SALICYLATE (B.P.) continues to be quoted by makers and dealers at 1s. 3d. to 1s. 5d. per lb. as to quantity.

METHYL SULPHONAL remains quiet, with dealers' prices steady at 12s. 7d. to 13s. 10d. per lb. as to quantity.

PARAFORMALDEHYDE is unchanged, with not very much life in the market: 100 per cent. powder, 1s. 7d. to 1s. 8d. per lb. as to quantity.

PARALDEHYDE continues to be quoted at about 1s. 1d. to 1s. 3d. per lb., according to quantity and packing.

PHENACETIN is steady but inactive: crystals, 3s. 8d. to 3s. 11d. per lb. as to quantity, with powder 1½d. per lb. more.

PHENAZONE continues in moderate demand at unchanged prices: crystals, 6s. 11d. to 7s. 3½d. per lb. as to quantity, with powder 1½d. per lb. more.

PHENOLPHTHALEIN is at the controlled prices of 5s. 11d. to 6s. 1½d. per lb. as to quantity, with the market steady but dull.

POTASSIUM PERMANGANATE (B.P.) is moving in small lots at about 6d. per lb.; quantities in drums, 5½d.

POTASSIUM SULPHOGUAIACOLATE remains inactive: dealers quote at about 3s. 6d. per lb.

RESORCIN continues at the old rates of 2s. 11d. to 3s. 2d. per lb. as to quantity; market is quiet.

SALICYLIC ACID (B.P.) is steady at the home makers' prices of 1s. 5d. to 1s. 7d. per lb. as to quantity.

SALOL remains quiet with quoted prices unchanged: crystals, 3s. 7½d. to 3s. 10½d. per lb. spot as to quantity, with powder 1½d. per lb. more.

SODIUM DIETHYLBARBITURATE is weak as quoted in the region of 10s. per lb. spot, some offers being cheaper; forward, five cwt., 9s. 7½d.; smaller lots up to 10s.

SODIUM SALICYLATE (B.P.).—The position continues unchanged: home trade, powder, ten cwt., 1s. 10d. up to 2s. 1d. per lb. for small lots, with crystals one penny per lb. more. Export prices f.o.b. London or Continent: powder, two tons, 1s. 10½d. up to 2s. 0½d. for small lots, with crystals one penny more.

SULPHONAL is very quiet, with the spot quotation in the region of 10s. 1d. to 11s. 2d. per lb. as to quantity.

TANNIC ACID (B.P. *leviss*) is a slow item, but prices are unchanged at 2s. 9d. to 2s. 11d. per lb. as to quantity.

TARTARIC ACID (B.P. crystals).—This market is sluggish and the tone is unsteady: foreign on spot is in the region of 1s. 3d. per lb., less 5 per cent.

THYMOL is unchanged, with synthetic fine white at 7s. 6d. for ton lots; 5s. 6d. for cwt. lots, and 9s. per lb. for less.

VANILLIN continues quiet: ex clove oil, 14s. per lb. in cwt. lots; ex guaiacol, 13s. 6d. per lb. in cwt. lots; lower prices for large quantities.

Industrial Chemicals, etc.

London, March 26.

THERE is little alteration in prices to record this week and the general tone is steady. Business is still disappointing.

ACETIC ACID continues steady, but business has been sluggish: 80 per cent. technical, £36 15s.; 80 per cent. pure, £37 per ton in barrels; glacial, pharmaceutical, 99 to 100 per cent., £66 in glass demijohns; glacial in barrels, £56 per ton ex store.

ACETONE is steady and business continues on a fair scale: B.G.S., ten-ton lots, £71 10s.; five tons, £63 10s.; one ton, £76 10s.; drum lots, £80 in free drums ex store or wharf.

AMMONIA (ANHYDROUS) is meeting with a fair call: 99.95 per cent., in loaned cylinders, 10d. to 1s. per lb. carriage paid; slightly less for contracts.

CAUSTIC POTASH is unchanged, with quiet demand: 88 to 92 per cent. solid, £29 10s. to £34 10s. per ton, in drums, as to quantity; 30s. per ton less c.i.f. in all cases.

FORMALDEHYDE is not in great demand and market continues competitive: 40 per cent. by volume, £34 per ton, in casks, ex store; less for large contracts.

ISOPROPYL ALCOHOL is steady and business is being done: reliable material, 11s. to 12s. per gallon in drums, carriage paid; lower grades at cheaper prices.

LEAD ACETATE remains dull: brown, £39; white, £40 5s. per ton in casks, ex store.

OXALIC ACID is well maintained at the former rates of £32 per ton for quantities, ex wharf; cwt. lots, 35s. ex store.

POTASSIUM BICHROMATE is quoted for home trade at about 4½d. per lb. carriage paid, with small rebates for large quantities.

POTASSIUM CARBONATE is quiet: 90 to 92 per cent., £23 10s. to £24; 96 to 98 per cent., £25 10s. to £26 per ton in casks ex store; slightly less for contracts.

POTASSIUM CHLORATE is unchanged on a very quiet market: quantities, £26 15s.; small lots from 3½d. per lb. ex store.

POTASSIUM PERMANGANATE is steady; business is limited: commercial quality, in two-cwt. drums, 5d.; smaller lots, 5½d. per lb. ex store.

POTASSIUM PRUSSATE is steady with business quiet: yellow, £63 10s. to £65 10s. per ton for quantities; single casks, 7d.; small parcels, 7½d. per lb. ex store.

SAL AMMONIAC is a fairly good market, with dealers' prices well maintained: dog-tooth crystals, £32; medium, £23; fine white crystals, £17 12s. 6d. per ton in casks ex store; slightly less for contracts.

SALTCAKE for home trade is selling in the region of 55s. per ton in bulk, delivered.

SODIUM ACETATE remains quiet, but dealers' prices are holding at about £20 15s. per ton in casks, ex store.

SODIUM BICHROMATE is quoted unchanged for home trade at 3½d. per lb. carriage paid.

SODIUM CHLORATE is steady but very slack: quantities, £25 15s. per ton; small parcels, from 3d. per lb.

SODIUM PRUSSATE is without much business: quantities, 4½d. to 5d.; smaller parcels, from 5½d. per lb. ex store.

SODIUM SULPHIDE is unchanged so far as dealers are concerned: 60 to 62 per cent. solid, £9 5s.; broken, £10 5s. per ton in drums, ex wharf.

ZINC OXIDE continues competitive: B.P., £41; white seal, about £35; red seal, about £32 per ton, carriage paid.

COAL-TAR PRODUCTS, ETC.—Distinctly quiet markets are reported, especially in carbolic acid crystals. Prices, however, continue unchanged and steady. ANILINE OIL is a steady market at 8½d. per lb. carriage paid, packages extra. ANILINE SALT continues unchanged at 8½d. per lb. carriage paid, packages extra. BETANAPHTHOL is unchanged, with the market steady at 9½d. per lb. carriage paid. CARBOLIC ACID CRYSTALS is very quiet, with home makers quoting at 7d. to 7½d. per lb., carriage paid. The market continues steady: crude carbolic 60's, 2s. 5d. to 2s. 7d. per gallon naked at works. CREOSOTE OIL is dull with prices unchanged; stocks have accumulated: home trade, about 4d. ex works ex port; 4½d. f.o.b. in bulk quantities. CRESYLIC ACID has been quieter but continues steady: pale, 97 to 99 per cent., 2s. 1d. to 2s. 3d.; refined, 2s. 8d. to 2s. 10d.; dark, 85 per cent., 1s. 8d. to 1s. 10d. per gallon naked at works. NAPHTHALENE is a quiet market with prices unchanged: flakes and balls, £14 15s. to £15 per ton in cases, ex wharf. METHYL ALCOHOL is unchanged on spot at about £42 per ton in drums; cheaper prices for quantities. PYRIDINE is a dull market: nominal at 4s. to 4s. 6d. per gallon f.o.b. TOLUOL continues steady and in fair demand: commercial 90's, 1s. 10d.; pure, 2s. 3d. per gallon ex works. XYLOL is dull; prices continue unchanged, with commercial at 1s. 10d. and pure about 2s. 1d. to 2s. 2d. per gallon ex works. PITCH continues on the quiet side at the controlled price of 47s. 6d. per ton f.o.b. East Coast.

Fixed Oils, etc.

QUIET markets continue to be reported and some items are again easier. Palm oils show a recovery and are now steady. Lined oil is weak. ACID OILS.—Prices are unchanged with the market dull: coconut and/or palm kernel, 31s. 6d.; groundnut, 27s. 6d.; soya, 26s. spot. CASTOR.—Prices show some recovery on the week, but the market is dull: pharmaceutical, 47s.; first pressings, 42s.; second pressings, 39s. 6d. spot. COCONUT.—Market remains slack: deodorised, spot, 41s. 6d.; Ceylon, 31s. 9d. c.i.f. COTTON.—Prices maintained with the market quiet: deodorised, 37s.; common edible, 35s.; soapmaking, 34s.; crude, 30s. 6d. spot. GROUNDNUT.—The market is steady with values higher: deodorised, spot, 41s.; crude Oriental, 36s. c.i.f. PALM

KERNEL.—Market remains dull: deodorised, 40s. 6d.; crude, 35s. 6d. spot. PALM.—Prices quoted for all grades show some recovery, with the market now fairly steady: Lagos, 29s. 6d.; softs, 29s.; mediums, 29s. 6d.; hards, 30s. 6d.; bleached, 32s. spot. RAPE.—Market is dull: refined, 40s. 3d.; crude, 38s. 6d. spot. SOYA.—Market is firm as quoted: deodorised, 37s. 6d.; crude, 34s. 6d. spot. LINSEED (raw, naked).—Prices show some recovery on the week, but the market is dull and weak as now quoted: on spot, 39s. 6d.; April, 37s. 3d.; May-August, 37s. 1½d.; September-December, 37s. 1½d. Boiled oil, 42s. 6d. spot.

LUBRICATING, MINERAL, BURNING OILS, ETC.—There has been a little interest in most products in this market during the past week, while conditions are generally unchanged. Business, on the whole, has been quiet. BENZOL continues in better demand, with the market steady: standard motor 90's, 1s. 6d. per gallon ex works, in tank wagons; ex London works, 1s. 7½d. FUEL OIL is quiet: 950 gravity, £3 5s.; 850 gravity, £3 17s. 6d. per ton ex tank; cheaper forward. PARAFFIN OILS continue firm, with prices unchanged: American standard white, 1s.; water-white, 1s. 1d. per gallon, barrels free, ex wharf. PARAFFIN WAX and SCALE.—Wax continues quiet from 2d. to 5d. per lb., in bags, according to melting point. Scale is offered for shipment at about £14 15s. per ton c.i.f. U.K. port. WHITE OILS are a quiet market: special No. 1, £24 10s.; No. 1, £23 10s.; No. 3 half-white, £20 10s.; No. 4 half-white, £18 10s. per ton, drums and barrels free, ex wharf. SOLVENT NAPHTHAS are quiet, with the market steady: 90 to 160, 1s. 2d. to 1s. 3d.; heavy 90 to 190, 1s. per gallon naked at works. PETROLEUM JELLIES are unchanged on a quiet market: white to snow-white, £36 10s. to £46 10s.; amber and yellow, £18 10s. to £22; dark stiff green, £12 per ton, barrels free, ex wharf. LUBRICATING OILS.—The market continues quiet, with dark and filtered cylinders unchanged at the reduced prices: spot, pales, £9 12s. 6d. to £21; reds, £11 to £21; dark cylinders, £12 10s. to £32 10s.; filtered cylinders, £22 10s. to £38 per ton, less 2½ per cent. SOLUBLE OILS and CUTTING COMPOUNDS are unchanged and steady from £20 to £23 per ton net. No. 1 RUSSIAN oil is offered on spot at £14 10s. per ton, less 2½ per cent., barrels free, ex wharf.

Spanish Olive Oil

SPANISH olive oil exports during 1929 amounted to 45,800 metric tons, compared with 106,200 tons for the preceding year. Producers who, in anticipation of price improvement, had arranged bank credits to enable them to hold their stocks, have experienced steadily declining quotations throughout the year for a net decrease of about 20 per cent. This is the outstanding unfavourable feature in the Spanish agricultural situation.

Bulgarian Rose Oil Exports

DURING the month of November 1929 Bulgaria exported 386 kilos of rose oil, valued at 15,912,528 leva, consigned to the following countries: Great Britain, 72 kilos; Germany, 5 kilos; United States, 37 kilos; France, 272 kilos; Czechoslovakia, 20 grams; other countries, 10 grams. The total exports during the first eleven months of 1929, according to the official statistics, amounted to 2,802 kilos, valued at 255,175,038 leva.

Java Cinchona and Coca Exports

THE following table shows the exports of cinchona and coca from Java during the period January to December 1929, compared with the corresponding period of 1928 (amounts in kilos):—

	Cinchona		Coca	
	Jan.-Dec., 1928	Jan.-Dec., 1929	Jan.-Dec., 1928	Jan.-Dec., 1929
	kilos	kilos	kilos	kilos
Great Britain ..	409,650	726,942	—	11,273
British India ..	99,809	—	—	—
Belgium and Luxembourg ..	—	51,036	—	—
France ..	—	283	—	37,949
Germany ..	20,671	—	40,601	69,525
Italy ..	36,549	86,976	—	—
Japan ..	348,941	773,532	25,884	42,881
Netherlands ..	5,772,712	7,201,822	325,063	465,809
Port Timor ..	25	—	—	—
Russia in Europe ..	2,084	—	—	—
U.S.A. ..	—	—	21,780	—
Total ..	6,690,441	8,840,597	413,328	627,437

Exports of quinine from Java during the year 1929 were 47,631 kilos, against 47,430 kilos during 1928.

Spanish Liquorice Root

THE bulk of the liquorice root production in the Seville area was shipped during the quarter ending September 30, 1929, total shipments to the United States being 736,556 lb., valued at \$35,047, against nil during the same period in 1928. The principal local shipper reports that the 1929 production of root is the largest for several years, and he anticipates that there will be an even more active demand in the next two or three years for root from Southern Spain.

Java Coca Exports

THE total exports of coca from Java for the years 1910 to 1929 inclusive have been as follows (amounts in kilos):—

	Kilos		Kilos		Kilos
1910 ..	433,000	1917 ..	179,172	1924 ..	1,118,181
1911 ..	740,627	1918 ..	494,184	1925 ..	977,764
1912 ..	1,065,376	1919 ..	994,203	1926 ..	1,065,785
1913 ..	1,332,311	1920 ..	1,707,438	1927 ..	723,472
1914 ..	1,353,270	1921 ..	1,072,673	1928 ..	413,328
1915 ..	776,939	1922 ..	1,283,503	1929 ..	627,437
1916 ..	136,853	1923 ..	907,335		

The following table shows the total exports from Java and the amount shipped to the Netherlands:—

	Total Exports			Netherlands		
	1927	1928	1929	1927	1928	1929
	kilos	kilos	kilos	kilos	kilos	kilos
January ..	64,425	22,562	80,444	61,050	22,562	80,444
February ..	89,312	29,083	52,958	85,954	29,083	52,958
March ..	208,144	29,157	81,256	103,119	19,777	53,730
April ..	24,537	37,083	58,633	19,840	37,083	55,012
May ..	43,630	12,736	44,369	16,568	3,094	40,821
June ..	126,021	60,261	52,671	60,250	60,261	52,671
July ..	3,721	30,280	22,268	3,721	8,500	16,988
August ..	52,727	22,311	24,013	20,372	9,569	18,128
September ..	29,722	16,067	32,490	27,145	16,067	17,393
October ..	50,439	73,581	27,409	38,935	42,005	20,774
November ..	18,119	64,814	90,593	18,119	62,674	27,199
December ..	12,675	15,393	60,333	6,475	14,388	29,691
	723,472	413,328	627,437	461,548	325,063	465,809

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1930, p. 341.

(From "The Trade Marks Journal," March 5, 1930.)

"CANDA"; for medicinal chemicals (3). By Clay and Abraham, Ltd., 87 Bold Street, Liverpool. 508,970. (Associated.)

"FREPAS"; for all goods (3). By W. P. Naismith & Co., Ltd., 74 Campbellfield Street, Glasgow, S.E. 509,081.

"CORDELS"; for indigestion tablets (3). By Cuxson, Gerrard & Co., Ltd., 26 Fountain Lane, Oldbury, Worcs. 509,463.

"KENFIRE"; for medicated rubbing oils (3). By T. N. Fenton, 449 Hilton Lane, Little Hulton, Nr. Bolton. 509,642.

"MAY-FLY"; for medicinal chemicals (3). By C. Mathews, 83 Falls Road, Belfast, Ireland. 509,707.

"EXPRESS" with picture of train on rails; and design of a railway engine; for medicinal preparations (3). By Reade Bros. & Co., Ltd., Cleveland Road, Wolverhampton. 510,078/079. (Associated.)

Label design including facsimiles of medals and name and address of claimant; for essential oils (4). By W. J. Bush & Co., Ltd., 23 Ash Grove, Hackney, London, E.8. 509,974. (Associated.)

"SPECTAD"; for photographic apparatus (8) and for printed paper, etc. (39). By The Spectad Development Syndicate, Ltd., 252 West George Street, Glasgow, C.2. 509,422/423. (Associated.)

"KOVITA"; for photographic papers (39). By Kodak, Ltd., Kingsway, London, W.C.2. 510,035.

"SNOWDENT"; for perfumery, etc. (48). By Montgomerie, Stobo & Co., Ltd., 52 to 72 Rogart Street, Bridgeton, Glasgow, S.E. 509,122.

"POMPADOUR"; for goods (50). By Carreras, Ltd., Arcadia Works, Hampstead Road, London, N.W.1. 508,663. (Associated.)



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Western Australian Sandalwood Oil

SIR,—Referring to Mr. E. J. Parry's article in your journal under date January 18, dealing with Australian sandalwood oil, he gives as a representative analysis of this oil figures taken from Mr. A. R. Penfold's contribution to this subject published in the "Journal and Proceedings of the Royal Society of New South Wales" recently. It will be apparent to any chemist well acquainted with essential oil distillation, and particularly to those engaged in sandalwood oil distillation, that Penfold's analysis has been conducted on an oil obtained from partially distilled material, thus making his analytical results and comments relating thereto unreliable. Before commercial distillation of sandalwood oil was conducted to any extent in Europe by large distillers with up-to-date plant and efficient laboratory supervision almost the entire supply of oil from *Santalum album* of East India was the product of native distillation. When reference is made to old pharmacopœias it is found that the constants required for this oil considerably differ from those required for the present-day product. The application of modern methods and scientific ability resulted in the production of an improved product, and the constants in pharmacopœias of more recent years were altered accordingly. The oil of Penfold's own production, the analysis of which was quoted by Mr. Parry in his article, when compared with the quality of that now being produced on a commercial scale by distillers in West Australia, may be classed as about equal to that produced by native labour in the inefficient apparatus generally associated with such productions. Even to-day there is available on the market supplies of East Indian oil in which specific gravity and solubility are not in accordance with the pharmacopœias, such oil being the outcome of native distillation. The same remarks apply to Mr. Parry's efforts of thirty-five years ago when, we understand, he was actively engaged in producing sandalwood oil in the Mount Barker district of this State. The low specific gravity, inferior ester number and insolubility of Mr. Penfold's distillate are therefore more illuminating than would at first appear to the casual reader of Mr. Parry's article.

Yours faithfully,

For and on behalf of PLAIMAR, LTD.,
H. V. Marr, managing director.

Perth, W.A.

The Training of Apprentices

SIR,—In the report of the annual meeting of the Liverpool Chemists' Association, Mr. Harold Wyatt made the remark that there was such a thing as educating a man above his job; and it is a point which bears very much on the condition of things to-day, when the standard of education and examination is gradually being increased while the work which a man has to do after qualifying is tending to become more akin to that of an ordinary trader than ever. I have read elsewhere that in the United States the system of apprenticeship is gradually being discontinued, owing to the fact that under the modern conditions of store business it is becoming impracticable to train apprentices efficiently, and instead the colleges are adopting a four-years' course in order to provide practical instruction as well as theoretical. It may be that the course of events is tending in the same direction in this country. But to take the whole of the training at a college seems to me to go too far in the reverse direction; it is in a shop that the majority of graduates will spend their

future lives, and there are a hundred and one details of shop routine which can never be taught out of it. We have enough complaints now that the younger generation of qualified men are lacking in shop efficiency; what would it be like if the whole of their pre-graduate training consisted of collegiate work only? Another argument which has been put forward is that doctors are trained solely in hospitals and medical schools and not by pupilage or apprenticeship to a medical man already in practice; but the two positions cannot be compared, as the future work of the embryo practitioner is to treat individually similar conditions to those he has been familiarised with in his hospital days. But not so with the pharmacist; take window-dressing—one could not expect a school of pharmacy to undertake such a subject.—Yours, etc.,

SEPARATUM (11/2).

Looking Abaft and Ahead

SIR,—Although still a young man, my memory can take me back to the time when T. & H. Smith, Oppenheimers and Henry Ayscough Thompson were almost cheek by jowl in Worship Street, and Arthur Berton (or Berliner as he then was known) was opposite; Burgoyne's were in Coleman Street; there was no British Drug Houses, Ltd., as such. Boots were then preceded in South London by Day's Southern Drug Stores, and the proprietary which still "touches the spot" was in its youth. The telephone was not then so common in use as now, and, of course, there were no motor cars; there was a calm and quietness then existing, which I sometimes wish I could be transplanted to; even the messenger boys could be heard whistling as they somnolently went about their errands in the streets. In those days I saw orders for 50 W qts. of syr. hypo. co. at 1s. 9d. per lb.; the same quantity of syr. ferri phosph. co. at 1s. 2d. per lb.; and I saw "wet" and "dry" floormen receiving 30s., and sometimes less, for a week's work from 8 a.m. to 6 p.m. (2 p.m. on Saturday). There was no D.D.A. in those days, and the editors of sensational newspapers did not find copy in the word cocaine. I think the retail chemist then was far more a chemist than his present contemporary; he was a manufacturer on a scale which was by no means insignificant, and the atmosphere and the odour of his shop were entirely different from that to which we are now accustomed. I often wonder whether we have advanced or retrogressed since those days. I am much afraid that the chemist has sold his profession to the P.A.T.A. and the packed goods supplier. There are many chemists who can remember the competition of, say, forty years ago; and should such days return, the fight will be fiercer by reason of the larger number of shops, and the private chemist will be in a poor position to compete with the multiple shops, as the latter can buy maximum quantities of patents at minimum rates, whereas the private trader cannot. The outlook for the young man entering the profession is none too bright; for if he finds himself the owner of a shop after years of study and expense, can he regard himself as much removed from an assistant in, say, a tobacconist's shop or any other shop where handing packed goods over the counter is almost mechanical in its simplicity? After reviewing the past thirty years in my mind, I feel I must regard the days which have passed as the "good old days."—Yours faithfully,

H. L. (7/2).

Too Many Proprietary Foods

SIR,—Mr. A. J. Espley draws attention to the loss inflicted on chemists by dated foods (*C. & D.*, March 1, p. 271), and his suggestion for quarterly dates is a good one. The trouble with foods is that there are too many of them, and some of them are very slow movers. There are one or two best sellers which are turned over fairly frequently, and it is not so difficult to deal with these, as usually they can be bought direct and are sold before the date is out; but for the rest it means constant supervision which takes up a good deal of time and so adds to loss of profit. I find that it means systematically looking at each tin once a week in order not to let the dates run too close, as customers will not take tins with only a short while to run. In some cases where there is a spasmodic

demand and only one or two tins are kept in stock to meet the demand, these have to be sent back for exchange several times without an actual sale being made, and in some instances it means posting them, with further expense. It happens that a customer begins on one of these lesser-known foods and has a tin or two a week for a period, and then as the child gets on drops it, and one has to decide whether to cease stocking or increasing expenses by exchange.—Yours truly,

ALIMENT (11/3).

Cost of Repairing Scales

SIR,—Your correspondent, "E. J. L.," has apparently had the same experience as myself. When my dispensing scales were tested some time ago I was informed by the inspector that they were in quite good order and only required the knife-edges sharpening up. I sent them to a large firm of scale-makers, asking for an estimate of repair, as my real intention was to purchase a fresh pair and keep the ones I had in reserve, since when my scales are tested they have to be taken six miles away to the nearest town. Not the slightest notice was taken of my inquiry, nor of a subsequent letter repeating the original request for an estimate; but the scales were returned about a fortnight later with a charge of 25s.

Yours faithfully,

RURAL (10/3).

Goods Exclusive to Pharmacists

SIR,—It is not often that I intrude upon your correspondence columns, but I feel impelled to comment briefly upon an advertisement that appears in your issue of March 22. Most retail chemists, I venture to believe, will agree with me in finding some satisfaction and gratification in the announcement that a certain tooth-paste is now confined entirely to pharmacists. I refer to "Genozo." In the present conditions of hard times, when pharmacists find that drapers, grocers, etc., are busy selling goods that, in previous years, were confined to pharmacies, it is altogether to the good that a much-advertised proprietary can only be obtained in pharmacies. It is surely "up to" all self-respecting chemists to support any firm which refuses to sell goods to non-pharmaceutical vendors. There is a moral in this for the well-known firms of X, Y and Z, whose representatives call not only on chemists but upon any and every retailer who will handle their goods.—Yours, etc.,

R. CECIL OWEN.

Chester.

The Use of Limited Capital

SIR,—"*Sigma*" (*C. & D.*, March 15, p. 336) is in the satisfactory position of having a good berth and salary, as times go; he has also capital to the extent of £500. The sum is inadequate for the purpose of opening and fitting a new and up-to-date pharmacy. And not much can be met with in the way of established concerns at that figure. I always feel that there ought to be; that many businesses are very much overpriced. In my view "*Sigma*" will be well advised to wait. The interest on his capital should yield £30 a year, which would pay the premiums on a couple of endowment policies which would mature at a future and more convenient date, perhaps, yielding a substantial increase on his outlay. A policy of the full life sort is not usually popular. It is a fact, however, that after a few years these may come to be a valuable asset and security. If "*Sigma*" goes in for something in this way, endowment policies perhaps preferred, and holds on to them, he will be every year in a better position to negotiate. "Or," says he, "is it best to carry on and save money for old age?" This all depends. Roughly, no. I would always keep in view a business of my own for all obvious reasons. One must, of course, not neglect the important matter of personal health, and it is undoubted that some men are not "cut out" for businesses of their own. In this respect "*Sigma*" should be all right, but I would not delay too long. This is the ruin of many branch managers. And saving for old age? Saving and investing £100 a year might in thirty years represent a capital value of between

£4,000 and £5,000, which would be pleasant enough added to the £6 10s. weekly stipend, but otherwise looks rather small. Drug staffs, generally, where pensions are the rule, must be prepared to resign or retire, *volens volens*, at about sixty-five, and many who have not done so well in the matter of savings as perhaps they might have done are inclined to take a dismal view of some future date. The term "ripe experience" is coming to have small value in the case of the employee. In short, let "*Sigma*" decide to ensure that his ripe experience is putting money into his own pocket.—Yours, etc.,

COGNOSCENTI (17/3).

Small Attendances at Meetings

SIR,—The suggestion that neighbouring associations should combine their meetings in order to give speakers an opportunity of delivering their messages to larger audiences and with a lesser number of calls on their time is an excellent one. It is a remarkable thing that there are always plenty of members who are ready to attend dinners, but the business meetings are generally confined to the officials and one or two stalwarts. Further, at an ordinary meeting members are entitled to ask questions and to discuss points which have been made by the principal speakers, which they cannot do at a dinner, and many things can be discussed which could not be brought up at a more or less public affair. This problem of attendance is the greatest difficulty of those chemists who try to infuse some life into pharmacy by undertaking the duties of officials in local organisations, generally at great inconvenience to themselves; the number present is frequently so poor that apologies have to be made to the councillors or others who have come considerable distances and taken great trouble to prepare notes in order to address a meeting. This suggestion, therefore, should, at any rate, be given a trial.—Yours truly,

ATTENDER (18/3).

Shop Training

SIR,—I think your correspondent "Efficient" (*C. & D.*, March 15, p. 337) puts his finger on the weak spot in a pharmacist's training when he says, "The only way out that I can see is to have a recognised list of pharmacies suitable for the training of apprentices"; and I certainly agree with him that no pharmacist who has not the necessary facilities for giving adequate instruction should take apprentices. I suggest to "Efficient" that he should take up this matter with his local Association and the Pharmaceutical Council, to give attention to his suggestion.

Yours faithfully,

ERNEST QUANT.

Torquay.

Council Election

SIR,—Is not Mr. W. H. Padget, who pleads for stimulation of interest in the Pharmaceutical Council election, one of those who secured registration as a chemist and druggist by virtue of being qualified not by examination, but by ability to comply with Section 4 of the Poisons and Pharmacy Act, 1908? It seems rather a tall order that one who has managed to attain to membership of the Pharmaceutical Society in such a way should presume to tender advice to the rest of us. Another of your correspondents protests against the stalling of the retiring members of Council who present themselves for re-election. But is he so obtuse that he cannot see the advantage of opponents being able to indicate clearly to supporters of change in representation that none of those who are starred should receive a vote. As a rule, the average voter is equally unacquainted with both groups of candidates, and the stalling of certain names provides a ready means of discrimination. A third correspondent has the brilliant idea of making amalgamation of the Society, the R.P.U. and the C.D.A. a matter to be decided by the coming election. I should class him as an optimist of the first water.—Yours faithfully,

PHARMACEUTIST (24/3).

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

R. A. (20/8).—PILLS FOR RHEUMATISM.—These pills are evidently very complex from the analyst's point of view. Small proportions of several substances appear to be present. The ash reveals magnesium as the chief element, with substantial proportions of sodium, potassium and calcium, and small quantities of zinc, bismuth, aluminium, silicon, boron and iron. A substantial proportion of sulphates is present. The reaction is alkaline, and resinous bodies are precipitated out by acids. This effect may be due to soap in part. Vegetable powders are present, as also capsicum, possibly accompanied by ginger, in significant quantity. Tests for alkaloids, salicylates and iodides were made with negative result.

Apprentice (9/81).—ARROW POISON.—In the "Bulletin of the Imperial Institute," Vol. V. (1907), No. 3, pp. 255 to 266, is a paper entitled "Vegetable Products of Kontagora Province, Northern Nigeria," by Dr. J. M. Dalziel, in the course of which it is stated that *Strophanthus hispidus* has been generally looked upon as the chief source of the arrow poisons, but in Kontagora *S. Sarmentosus* is more frequently employed. According to Martindale, only the former of these two gives the green colour with sulphuric acid, and with the specimen sent no green colour was obtainable, whence one may infer that the poison may be derived from the latter. Probably the safest way of removing adherent poison from the arrows, etc., is to rub them carefully, but persistently, with cotton-wool moistened with weak ammonia diluted with half spirit and half water, till the whole of the deposit is removed. The wool should be held in forceps or crucible tongs. If necessary, other solvents may be tried. Wool, powder, etc., should be burnt, being careful not to inhale the dust, if any. If desired, the powder may, of course, be kept safely in a bottle.

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics

Posology of Colchicum.

Colchicum is official in the B.P. 1914. The strength of the wine is 200 to prepare 1,000 of product, and that of the tincture is 100 to prepare 1,000 of product. The wine dose is officially stated to be 10 to 30 minims, and the tincture dose 5 to 15 minims. Since the alkaloidal strength of dried corm and seed is practically the same, we have another instance of double the strength and twice the dose.—*Abel Scholar (21/1).*

That After-Hours Bell

The following idea may be of use: Fix a coin slot close to the bell-push; cut one wire to push and arrange it so that a coin inserted completes the circuit. The bell will not ring until a coin is put in. The value of the coin must suit the district, but 1s. will be right for most places. A notice close to bell would make it clear that the coin was a fee for answering the door and that it would be allowed if a purchase was made.—*R. L. Boyd, Dublin.*

Memorial to the late Mr. E. Alfred Webb

An appeal has been issued by the Rev. Canon E. Sidney Savage, M.A., rector of St. Bartholomew the Great, London, E.C.1, for funds to ensure the addition to the church of a sacristy, and to dedicate this to the memory of the late Mr. E. Alfred Webb, Ph.C., who was a churchwarden for more than forty years and the historian of this ancient church. It is estimated that some £2,600 will be required. Subscriptions should be sent to Canon Savage at the vestry of the church.

Legal Queries

D. M. (24/1).—The inclusion of the name of an ailment—in this case the word "chilblain"—either on the label of the ointment or in any printed matter used in connection with the article, renders the preparation liable to medicine-stamp duty.

G. H. S. M. (17/1).—The Commissioners of Customs and Excise would not regard a preparation consisting of compound syrup of hypophosphites 1½ oz. (B.P.C.), orange wine to 25 oz., as sufficiently medicated for sale without the appropriate wine licence.

G. S. G. (15/3) asks whether in the event of a company selling a branch shop they will be liable to pay a month's wages in lieu of notice to any assistants whose services are not taken over by the purchaser? [Yes; the assistants are entitled to receive notice in the ordinary way, or wages in lieu of notice.]

E. O. (5/3) has been carrying on business under his own christian name and surname. He now intends to use his christian name only. What steps must he take to make the change legal? [It will be necessary for "E. O." to be registered at the Registry of Business Names, Somerset House, Strand, W.C.2. He will have to fill up a form and pay a fee of 5s.]

Wholesale (23/1) is asked by a customer to supply him with rectified spirits 58 o.p. in quantities of a pint at a time for the purpose of making special medicines. On inquiry of the local Customs and Excise officials he has been informed that the quantities he has been asked to supply can only be sold if he holds the Excise £10 licence, which is issued to manufacturing or wholesale chemists as well as the corresponding magistrates' licence to sell spirits by retail. He asks if this is correct. ["Wholesale" may, without any licence, as a concession from the Commissioners of Customs and Excise, sell those spirits to persons requiring them for medical or scientific purposes provided that not more than 5 oz. are sold at one time to one person. If it is intended to sell a larger quantity the £10 licence referred to by the officials should be taken out. Hitherto this licence has been granted only to a chemist who held the appropriate licence to retail spirits from the magistrates. Having regard to the official evidence recently given before the Licensing Commission, however, we would advise "Wholesale" to apply to the Commissioners of Customs and Excise for the grant of a licence without the production of a justice's licence. See *C. & D. Diary*, 1930, p. 312.]

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," March 15, 1880

A Dental Episode

A recent "Note" reminds me of two cases of accidental swallowing of artificial teeth. . . . The second case concerned immediately a late musical professor of this town. Meeting him in the street one day, and observing his changed appearance, I asked him what was the matter with him. He answered, "I have swallowed my artificial teeth, consequently cannot masticate as I ought; hence indigestion, and its usual train of ills." "When did it occur?" I asked. "Oh! some two months or more since," he replied. . . . I, of course, urged him to lose no time in getting the set replaced by others, or the consequences might be serious. His answer was both comical and characteristic. "Mr. Groves," said he, "I have all my life been an unfortunate fellow—always half-a-bar behind, and I am as certain as possible that if I were to order a new set of teeth, within an hour of their being fixed, I should recover the old ones." [From a letter to the Editor by the late Mr. T. B. Groves, Weymouth.]

Owing to pressure on space this week's portion of the *C. & D. Commercial Compendium* is held over.



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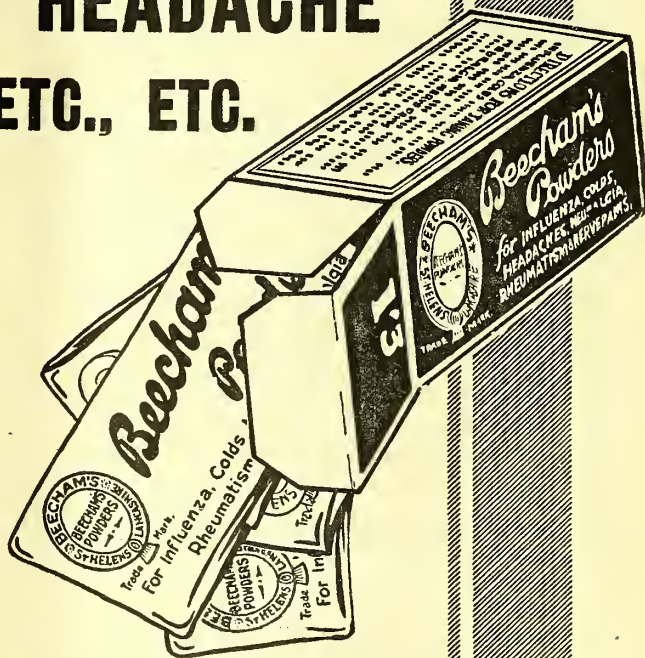
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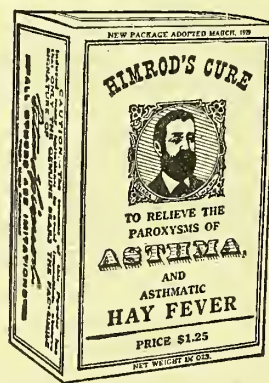
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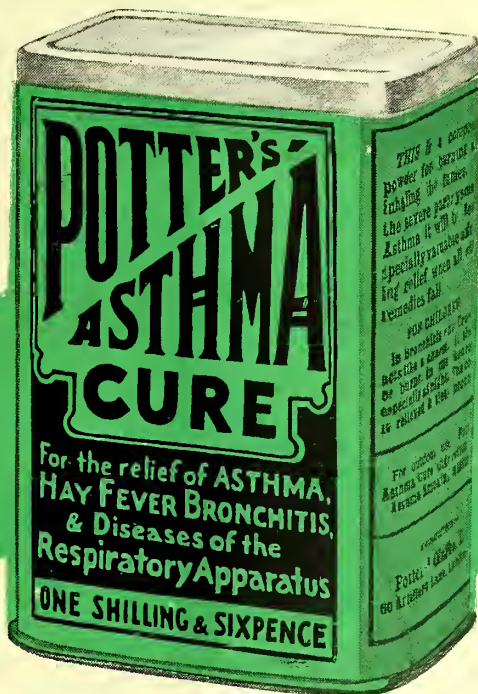
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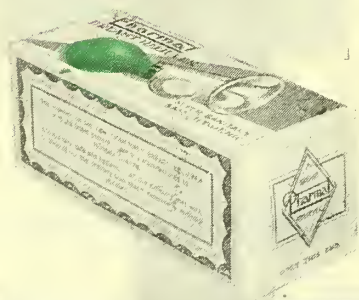
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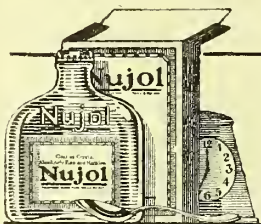
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A COMBINATION OF PETROLAX AND PHENOLPHTHALEIN

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A new H. B. T. Product.

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This tried and proven remedy you can recommend with every confidence to your clients. It has never been known to fail.

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Send your order now. Orders will be executed in rotation.

HUNTER BEATTIE, 25 Monteith Row, Glasgow, S.E.

We shall be glad if you will see that your stock of H.B.T. ASEPTIC TOILET & SHAVING SOAPS IS KEPT UP

We are having complaints from all over the country that customers are calling on Chemists for these Soaps and are informed that they are not in stock. Will you kindly help us to meet this demand? Any wholesale House can supply these soaps on shortest notice. Why not get in, without delay, a sufficient stock to give a display? These soaps will give entire satisfaction and your profits are 50 per cent. on your outlay. We will gladly send to any Chemist a supply of Showcards and Illustrated Circulars which will materially aid in making known the unequalled excellence of these Aseptic Soaps.

H.B.T. ASEPTIC TOILET SOAP .. 9d. ; 6s. per doz.

” ” ” .. 3 Tablet Boxes, 2s. 3d. ; 18s. per doz.

” ” SHAVING ” .. 1s. ; 8s. per doz. net.

Stocks are held by Messrs. Sangers, Ltd., Newberys, May, Roberts & Co., Butler & Crispe, Evans Sons Lescher & Webb, Ltd., James Taylor, Ltd., T. & H. Smith, Ltd., Cockburn & Co., Ltd., Duncan, Flockhart & Co., Ltd.

HUNTER BEATTIE, 25 Monteith Row, Glasgow, S.E.

SPRING is COMING

and it will pay every chemist to make a good display of

PRO SPA QUA **EFFERVESCING CARLSBAD POWDER**

(Free from Sugar)

**ELEGANT
PACK.**

Sells **1/6** bottle.
HANDSOME PROFIT.

**SURE
REPEATER.**

EFFERVESCING SALINES, CITRATE OF MAGNESIA,
SEIDLITZ POWDERS, BLOOD MIXTURE, CHEMICAL FOOD,
EASTON'S SYRUP, SYRUP OF FIGS, PEROXIDE, LYSOL, &c.

Prices on application.

ROBERT BLACKIE

(Sole Manufacturer and Proprietor of the World-famed "SPUN" OINTMENTS).

Telephone:
HOP 2422
(2 lines)

SHEN WORKS, Tower Bridge Rd., LONDON, S.E.1

Telegrams:
"USHENSUNA"
LONDON.

Vapo-Cresolene

The vapourised antiseptic remedy that for nearly 50 years has been the proved remedy for **Coughs, Colds, Bronchitis, Influenza, Asthma** and all bronchial troubles.

A Big Seller

yielding Big Profits

Vapo-Cresolene is one of the lines every Pharmacist should stock

SEND AN ORDER TO-DAY

and reap the benefits of the

EXTENSIVE ADVERTISING

now appearing in 30 leading Dailies, Periodicals and Magazines, including *Daily Mirror, Daily Sketch, Daily Mail, Daily News, News of the World, Sunday Graphic, Home Chat, Home Notes, John Bull, etc.*

Allen & Hanburys, Ltd., Lombard St., London, E.C.3



"Letters of Mark"—

B.P. **BOX'S PILLS**

for the
British Public
per the
**British
Pharmacist**

On P.A.T.A. LIST

In 1/3, 3/-, 5/-, 12/- and 22/- boxes

Box's Pills have a special public of their own—many of whom have had to go considerable distances to obtain their favourite medicine, or to order from Plymouth, for lack of a local source of supply. Pharmacists are now co-operating in distribution of Box's Pills in increasing numbers, and healthy local demand is developing. Stock them and show them and you will sell them. Display outers and other attractive show material free on application.

Obtainable from Wholesalers, or direct from the proprietor

W. H. BOX

**GIANT PILL
MANUFACTORY 161 King St., PLYMOUTH**

Telegraphic Address. "GIANT," PLYMOUTH.

'PHYLLOSAN'

Reg'd Trade Mark

BRAND OF CHLOROPHYLL TABLETS

BONUS OFFER CLOSES MARCH 31st

All orders for delivery ON or BEFORE that date will be filled at the rate of

THIRTEEN TO THE DOZEN

yielding 52% on Cost, or 34% on Turnover, minimum quantity, 3 doz.,

TRADE TERMS

March 7, 1930.

(P.A.T.A.)

3 doz.

either size or assorted

3/- Size (unstamped) 27/- per doz. 25/6 per doz.

5/- " " 45/- " 42/9 "

Original cases only. 1 doz. and 3 doz., either size, carriage paid.

Full particulars, together with offer of NEW DISPLAY MATERIAL, have been posted to all retail chemists. If you have not received your copy, please apply at once to the Distributors, at the address below.

Distributors: FASSETT & JOHNSON, LTD., 86 Clerkenwell Road, LONDON, E.C.1

Issued by Natural Chemicals, Ltd. (Agents)



PRUNOL

PRUNE JELLY

NATURE'S FRUIT LAXATIVE FOR CHILDREN AND ADULTS.
SAFE AND SIMPLE



Stocks now
available with
new label
as advertised

Look to your Stocks

Our great advertising campaign is now in progress. We are sending the Public to you. To avoid disappointing your customers order now from your Wholesaler.

In Jars, 1/6 & 2/11. Profit on Selling Price 25%.

SHOWCARDS AND BOOKLETS GRATIS ON APPLICATION

PRUNOL PRODUCTS LTD. 28, BUCKINGHAM GATE,

Phone: Victoria 3536

Wires: "Prunol, Soutest, London."

S.W.1

*A new Collosol Product***CROOKES'**
EMULSION with COLLOSOL CALCIUM

(50% C.L.O.)

A medically attested preparation now being extensively prescribed for its high vitamin value and its perfect combination with the most easily absorbable form of the element Calcium.

Issued in Bottles - 6 oz. **2/6** 12 ozs. **4/-**

Samples and fuller particulars on application.

The CROOKES LABORATORIES
(BRITISH COLLOIDS LTD.)

22 CHENIES STREET
LONDON - - W.C.1



A HARLEY STREET REMEDY AT A POPULAR PRICE

Cephos
See face REGD
Pronounced THE
PHYSICIAN'S
REMEDY

For
RHEUMATISM
INFLUENZA
NEURALGIA
NEURITIS
LUMBAGO
SCIATICA
COLDS

Show Cephos and sell it!

Cephos Ltd. Blackburn



*The Original!
and still the best*

There is a steady all-the-year-round demand for "O.A.P.'s" the Original Antiseptic Pastille, as prepared by Wm. Alfred Jones, late of the Liverpool Throat Hospital.

In 1lb. and 4lb. tins (to retail at 5d. oz.)

3/4 per lb.

In 1/- pocket tins

7/6 per doz.

SAMPLE TINS
ENVELOPES
SHOWCARDS
DISPLAY OUTERS
BONUS FOR
WINDOW DISPLAY



O.A.P.'s

Sole
Distributing
Agents:—

WM. ALFRED JONES, Ltd.
West India House, Liverpool.
Wholesale Agents:—
London: Thos. Hodgkinson,
Prestons & King, 292 Bishopsgate, E.C.2.
Bradford: Brook, Parker & Co., Ltd.
Birmingham: A. S. Price & Co., Ltd., Blackheath, Bath: Steel & Marsh, Milson Street.



The 'Aspro' Review



17% Extra Profits.

"British to the Core"

New Series Display Features.



"ASPRO"
RELIEVES COLDS, INFLUENZA AND RHEUMATISM
IN ONE NIGHT. IT DOES NOT HARM THE HEART.



"ASPRO"
STOPS PAIN IN 5 MINUTES
-IT DOES NOT HARM THE HEART

Beautiful New Display Features Printed in Natural Colours for Exclusive Showing by British Chemists

ACCEPTING the advice of a number of leading chemists to provide high-class display features we have pleasure in announcing the completion of a new series, exclusively produced for chemists.

The illustrations on these pages represent actual photographs of cut-outs just received from the printers. The size of each is approximately 22 by 14 inches, and the printing has been executed in full colour with a gloss finish. The composite display shown below is a folding combination in group form of the same figures and has been produced to place on counters, shelves, and in corners and recesses.

From the point of artistic value these displays will not only attract attention, but they will add tone to your display work—give an undeniable impression of progression—and the 'ASPRO' messages link your store to the largest medicine advertising campaign in the world.

Simply write or 'phone, and a complete set will be forwarded to any chemist in Great Britain.

There is no doubt that the new displays will further enhance 'ASPRO' sales for chemists. Turn up your ledger and analyse your 'ASPRO' purchases. IF YOU ARE NOT BUYING ON OUR BONUS TERMS you are losing an average additional 17 per cent. net profit, so figure out exactly what this extra percentage would mean to you EACH YEAR. With the cost of doing business rising higher year by year, is it good business to MISS an extra 17 per cent. net?

The 'ASPRO' bonus is as follows:—On a one gross order for 10's the bonus is one dozen packets, on half-gross order, 2 dozen packets. Half gross 10's is the minimum order accepted for Bonus purposes.

17% Extra Profit if You buy Your 'ASPRO' Supplies on Bonus Terms

On a one gross order for 27's the bonus is 2 dozen packets, on a half-gross order 1 dozen packets, and on a quarter gross order ½ dozen packets. A quarter gross order is the minimum quantity. There is no bonus on 5's or 60's.

The conditions are that the Chemist who buys on these terms undertakes to display prominently 'ASPRO' advertising matter in his shop window for 14 days, and sell at advertised prices. As 'ASPRO' is so extensively advertised, this action will not only bring customers into the Chemist's shop to purchase 'ASPRO', but should enable the Chemist's staff to make other sales to these customers. Acceptance of Bonus is considered acceptance of conditions regarding display and selling prices. For Bonuses it is not necessary to buy both sizes at the same time, i.e.,

single lots 6 dozen 10's or 3 dozen 27's will qualify the Chemist.

You order as follows:—We do not sell direct to the Chemist. All our business goes through Wholesalers. Orders may be sent either to your Wholesaler or direct to us. If to us, state the name of your Wholesaler, so that we may forward the order on and the Bonus will be supplied direct by us.

Ordinary prices for 'ASPRO' are as follows:—

3d. size containing 5 tablets 2/3 dozen.
6d. size containing 10 tablets 4/6 dozen.
1/3 size containing 27 tablets 11/6 dozen.
2/6 size containing 60 tablets 21/- dozen.
Less 2½% 30 days.

NOTE.—1/3 size contains 2 extra tablets. The 2/6 size 10 extra tablets.

'ASPRO' consists of the purest Acetyl Salicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Agents—

GOLLIN & CO. PTY. LTD.
(Aspro Dept.)

SLOUGH, Bucks.

Phone - Slough 603.

No proprietary right is claimed in the method of manufacture or the formula.



Composite Display for Shelves and Recesses.
Printed in Full Colours.

"ASPRO"
REG. TRADE MARK

Made by ASPRO LIMITED
Slough, England

CLARKE'S BLOOD MIXTURE & OTHER PREPARATIONS

Wholesale Prices.

	SIZES.	PRICE PER DOZEN
Clarke's Blood Mixture	3/- & 12/-	£1 : 7 : 0 & £5 : 8 : 0
„ Miraculous Salve	1/3, 3/- & 5/-	11/-, £1 : 7 : 0 & £2 : 4 : 6
„ Special Aperient Pills	1/3, 3/- & 5/-	11/-, £1 : 7 : 0 & £2 : 4 : 6
„ Patent Skin Lotion	1/3	11/-
„ Medicated Soap	1/-	9/-

Orders: Minimum quantity £16 : 4 : 0 value.
FREE CASES. Carriage paid upon orders of £100.

All Wholesale Houses keep a large stock of our Preparations and can supply smaller orders promptly

Minimum Retail Selling Prices: 1/-, 1/3, 3/-, 5/- & 12/- Face Value, giving a **PROFIT** of $33\frac{1}{3}\%$ on cost to Distributors.

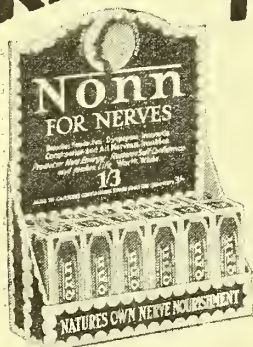
An attractive Showcard and Dummies supplied on application

Trade Mark: "BLOOD MIXTURE." Regd. No. 3275.

Sole Proprietors:

THE LINCOLN & MIDLAND COUNTIES DRUG CO., LTD.
Park Street, LINCOLN.

KEEP NONN TO THE FORE !



Nonn sales are increasing everywhere and Chemists are co-operating with our advertising. Are you? If not, display Nonn in one of these attractive containers. It is worth the small space it occupies, for Nonn is a big success and sells readily. So keep Nonn to the fore !

Nonn FOR NERVES
RESTORES SELF-CONFIDENCE

Prices and Particulars:

NONN IS SUPPLIED IN RED CARTONS FOR MEN AND IN BLUE CARTONS FOR WOMEN

P.A.T.A. 1/3 per carton, Wholesale 11/3 per dozen
P.A.T.A. 3/- per carton, Wholesale 27/- per dozen

Sole Distributors: Proprietors of Nonn Ltd.
45 Gordon Square, London, W.C.

"YEAST FOR VITAMIN B."

Yeast specially prepared for medicinal purposes.

GUARANTEED ABSOLUTELY PURE.

MIDGLEY & PARKINSON, LTD.,
WARREN WORKS, PUDSEY, LEEDS.

WESSANEN'S

PURE COCOA POWDER
PRIME COCOA BUTTER

Sales Office:

12 Broom Lane, Broughton Park, MANCHESTER

RIDGE'S
FOOD

for Infants, and Adults of all ages.

WELL ADVERTISED to the GENERAL PUBLIC.

SAMPLES, ADVERTISING MATTER and SPECIAL
DISPLAY TERMS ON APPLICATION TO:

ROYAL FOOD MILLS, LONDON, N.16

BURGOYNE'S UNIVERSAL FRUIT SALINE

**Shows an
average profit
of
90%
and carries a
Bonus Value
27/-
for
Guaranteed
Window Display**

**SAMPLE AND FULL DETAILS
FROM**

**BURGOYNE, BURBIDGES & CO., LTD.
LONDON**

E.6.

PURE MALT EXTRACT

with *FINEST*

NORWEGIAN COD LIVER OIL

The Brand that does not separate nor crystallize.

Your own name and address on labels. In English jars, etc. Direct from the actual manufacturers.

THE BRITISH DIAMALT COMPANY
SAWBRIDGEWORTH - - HERTS.



Saint-Raphael

**Tonic, Restorative,
Digestive Wine.**

Known throughout the World,
and prescribed in all cases of
**ANÆMIA, DEBILITY, and
CONVALESCENCE**, to Young
Women, Children and the Aged.

DOSE: One wine-glass after the
two principal meals.

Recommended by—
PROF. BOUCHARDAT, Professor of
Hygiene, Paris Faculty of Medicine.
DR. MACNAUGHTON JONES, London,
England.

"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Paris hospitals as a pure tonic, by eminent physicians, such as Magendie, Roson, Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—*Union Médicale*, May 8 and June 12, 1873.

"The 'Vin de St. Raphaël' is often used for ladies nursing their own children; it is preferable to stout, which creates an unhealthy fat."—*The Lancet*, London, England.

"St. Raphaël Wine is most precious in all cases where it is necessary to give tone to the system, without effort or shock."—**DR. C. DES BARRES**.

Cie du VIN SAINT RAPHAEL, Valence, Drome,
FRANCE.

**To be obtained from all
Wholesale Druggists.**

ORDER NOW FOR
SPRING & SUMMER
TRADE.



MASON'S Ginger Wine Essence

**QUICK
SALES**

**GOOD
PROFIT**

Liberal Window Show Allowance
Artistic Display Material

SEND FOR PRICES.

NEWBALL & MASON, LTD. NOTTINGHAM

The
Famous Natural Aperient Water.

Hunyadi János

An extensive propaganda is being carried out among the Medical Profession and the general public which is resulting in a largely increased demand for this world-renowned NATURAL Aperient Water.

Prices to the Trade :

24/- per doz. large bottles - or 48/- per case of 25
18/- „ „ small „ - or 72/- „ „ 50

Net, Carriage Paid.

Minimum Retail Prices :

2/6 per large bottle.

2/- per small bottle.

Hunyadi János has for more than fifty years been recognised as the best of the **NATURAL** mineral waters containing sulphate of soda and sulphate of magnesia. Its laxative action is sure but gentle; it stimulates the liver and cleanses the blood.



Doctors are constantly prescribing Hunyadi János in preference to ordinary aperients, whilst many of your customers who know its value are already using it. Traders would therefore find it to their advantage to keep a stock of this famous **NATURAL** Aperient Water.

Sole Wholesale Agents :

INGRAM & ROYLE, LTD.

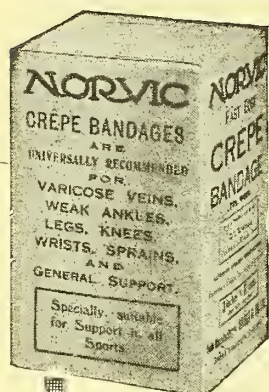
BANGOR WHARF

45 BELVEDERE ROAD

LONDON, S.E.1

19 South John Street, Liverpool

Bath Bridge, Bristol



For the WINDOW or the COUNTER

A prominent display of "NORVIC" prompts people to buy and brings handsome profits.

NORVIC BLUE CARTON CREPE BANDAGES

Recommend "NORVIC" with confidence. Fully guaranteed, highly recommended, and invaluable for varicose veins and wherever support is needed.

P.A.T.A. Prices

	2"	2½"	3"	3½"	4"
Cost:	12/-	15/3	18/3	21/3	24/3
Sell:	1/6	1/11	2/3	2/8	3/-

Stocked by all the leading wholesalers.

Sole Manufacturers: Grout & Co., Ltd.,
35, Wood Street, London, E.C.2.

Sells like hot cakes!



"CLEAR CORN"

—7½D.—

**GUARANTEED
CORN REMOVER**

Hermetically sealed —
no trouble with leakers

ORDER. 3 doz. and 3 bonus; Cost 13/6—Profit 10/10½

ORDER. 6 doz. and 9 bonus; Cost 27/-—Profit 23/7½

CARRIAGE PAID—PACKING FREE
DISPLAY MATERIAL—SHOWCARD AND TWIN-TIER
OUTER CONTAINING 12

Order Direct or through your wholesaler

KOF-OH Co., Ltd.

MANUFACTURING CHEMISTS
EVERTON - LIVERPOOL

GARDINER'S OVERALLS

For CHEMISTS & DRUGGISTS

SEND FOR NEW ILLUSTRATED LIST.

Jackets and Coats of very superior quality, made from the most reliable materials, smartly cut and thoroughly well finished in every detail.

WHITE DRILL JACKETS	6/11, 8/11, 10/6
KHAKI DRILL COATS	6/11, 8/6, 10/6, 12/6, 14/6	
WHITE DRILL COATS	7/6, 9/6, 12/6, 13/6, 15/6	
BLACK DRILL COATS	...	15/6
GREY COTTON COATS	...	7/6

STOCK SIZES: 34 to 44 chest measure over waist-coat. Special pockets and little adjustments can be made without extra charge. POSTAGE on sing'e coat 9d., but 20/- orders upwa ds carriage paid. SPECIAL PRICES FOR LARGE QUANTITIES.

GARDINER

& CO. (The Scotch House), LTD.

1, 3, 5 Commercial Road, LONDON, E.1

Telephone: Bishopsgate 6751.

Established 1839.

BRANCHES:

Deptford, Edgware Road, Woolwich,
Clapham Junction and Knightsbridge.

CELLOPHANE

The ideal transparent wrapping absolutely harmless, air and grease proof, as used by all the leading Perfumers, Soap Manufacturers, etc., etc., for wrapping Soaps, Drugs, Tablets, Bath Crystals, Perfumery, Surgical Dressings, Sponges, Puffs, Soothers, Tooth Brushes and all Articles of Toilet.

Cellophane can be had in sheets, all sizes and colours; also in the shape of **Bags, Discs, Envelopes** printed or not, allowing the contents to be seen by transparency.

Cellophane wrapped goods look better—keep better—sell better.

Cellophane protects, beautifies, and adds the quality touch.

Prices, Samples and Particulars from

The **CELLOPHANE COMPANY LTD.**
7, 8 and 9 Bird Street, LONDON, W.1

Also 305-7 PRODUCE EXCHANGE, MANCHESTER.
35 MILLER STREET, GLASGOW.

De Luxe
**ART. SILK
BANDAGES**

"Crêpsyl" (WOVEN CRÊPE)
*Dainty and ideal for
understocking wear.*

BANDAGES—widths 2in. to 4in. 1/8 to 3/4 ea.
BINDER—widths 4in. to 15in. 3/4 to 12/6 ea.

Beware of imitations and copies.

There is only one Crêpsyl Bandage, and
only one Silwick. Passing off is illegal.

"Silwick" (WOVEN STOCKINETTE)
ideal for Varicose Veins.
Bandages 2/- to 4/- ea.
Binders 4/- to 15/- ea.

ALL BINDERS REINFORCED TO PREVENT
SAGGING. SAMPLE CUTTINGS FROM MAKERS.

H. W. LAKE LTD.
6 & 7 C.D. Redcross Street
LONDON, E.C.1

**PERKEN, SON
& CO., LTD.**

Established 1852.

Contractors to H.M.
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THE
"MATER"
CLINICAL
REGD.

ALL
TYPES
OF
CLINICAL
AND OTHER
THERMOMETERS

Price List on Application.

94 HATTON GARDEN,
LONDON, E.C.1

Telephone : 0724 Holborn.
Telegrams : "Optimus, Smith, London."



WILSON
*"The temper of
Finest Steel"*
GLOVES

SUPPLIED TO THE
TRADE EXCLUSIVELY



Robt. Blaker
11, CANUTE RD.
SOUTHAMPTON

**Dr. SCHOLL'S
ZINO PADS**

For Corns, Bunions,
and Callouses.

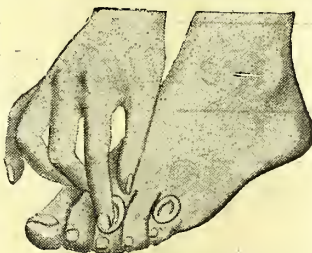
Being simple to apply, effectual
in use and heavily advertised,
they have secured the major
part of the enormous and
increasing demand for corn,
bunion and callous remedies.

**Put one on—the
pain is gone.**

Dr. Scholl's Zino Pads remove the cause, prevent all chafing and
rubbing, are self adhesive—require no strapping, are applied in three
seconds and do not come off even when bathing. Retail price per box 1/3

Write for Illustrated Catalogue.

The SCHOLL MFG. CO. LTD., 188/194 St. John St., London, E.C.1.



J. PILLISCHER, Ltd.

88 New Bond St., W.1

The "International"
Microscope

IMPROVED MODEL

2 Eye Pieces. $\frac{3}{8}$ & $\frac{1}{2}$ Object Glass
Magnifying Power 50 to 420 diams.

In case with lock and key.

Sent free to any part of
the World on remittance of

£14 : 6 : 0

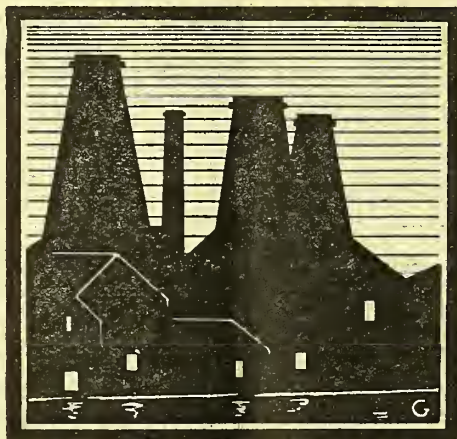
The Lancet says:

"We can conscientiously recommend
it to all who really
want a useful instrument."

Enquiries invited
for all other kinds
of Microscopes,
Optical and other
scientific instruments.

15 GOLD MEDALS
16 GRAND PRIX





Pharmaceutical Glassware of all kinds

DISPENSING BOTTLES
CHEMISTS' SHOP BOTTLES
INFANTS' FEEDING BOTTLES
SOXHLET BOTTLES. EYE-BATHS

Designers & Manufacturers of Glassware for Perfumes, Cosmetics and Bath Salts

SPRINKLER NECK BOTTLES
WHITE OPAL AND ROSE PINK
FROSTED GLASSWARE

Colours WHITE FLINT, MEDICAL TINT, PALE GREEN,
ACTINIC GREEN, AMBER, BLUE and ART COLOURS

All our Manufacture is of the Highest Quality

WOOD BROTHERS GLASS CO., LTD.

(ESTABLISHED 1828)

BARNSELY - - - ENGLAND



KORK-N-SEAL

(REGISTERED TRADE MARK)

The perfect Seal and Reseal for Glass and Tin Containers. British made throughout at our own works, Charlton, S.E.7.

KORK-N-SEAL LTD.

Manufacturers of Aluminium and Decorated Tin Closures of every description.

40-43 NORFOLK STREET, STRAND, LONDON, W.C.2.

Telephone: Temple Bar 6680.

Telegrams: Korkanseal, Estrand, London.

DRY BOTTLE CAPS

Superfine
Self-sealing
Distinctive

All sizes and
colours, Clear
& Opaque

"ADAPTOCAPS"



An unrivalled
British Product

Special low rates
for large contracts

The London Capsule Co., Empire Works, Mitcham Rd., Croydon

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Australasian Agent—FRANK HAMBRIDGE, 22 Bridge Street, Sydney.

Corks
OF EVERY
DESCRIPTION.

Send us your Enquiries,
and compare our prices.

WHOLESALE & EXPORT.

C. OLLEY & SONS, LTD.

ESTABLISHED 1844.

Camperdown St., and Gt. Alie St., London, E.1.
Tel. No. : Royal 2868. Tel. Add. : "Circumference Ald, London."

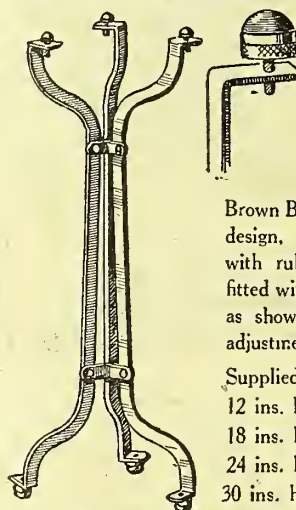
METALLIC CAPSULES

for all purposes.

The Tonkin Metallic Capsule Co.

Proprietors - C. Olley & Sons, Ltd.

An Attractive Window Display



TRIPOD

No. SF/CD 2761
(Registered Design No.
746230).

Brown Bronze Stand, very elegant design, bottom limbs are fitted with rubber pads and tops are fitted with adjustable rubber pads as shown in illustration. This adjustment is a distinct advantage.

Supplied in the following sizes :

12 ins. high	...	4/9 each
18 ins. high	...	6/9 each
24 ins. high	...	8/9 each
30 ins. high	...	10/9 each

As used by the leading Chemists and Druggists.

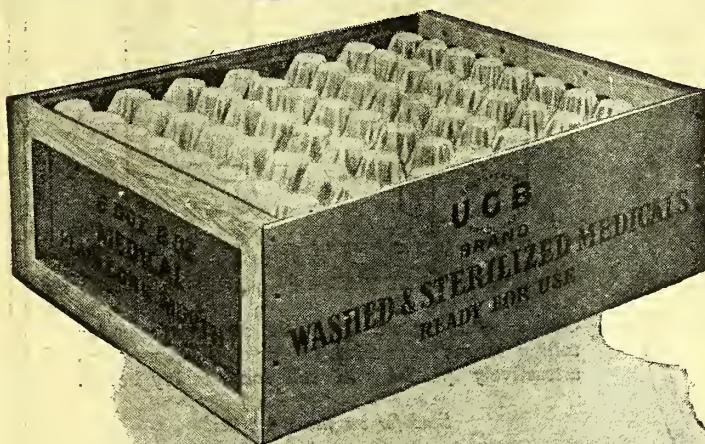
Send for our full List No. CD 1115.

DUDLEY & COMPANY, Limited

451 Holloway Road, London, N.7.

City Showrooms : 65/66 FORE STREET, E.C.

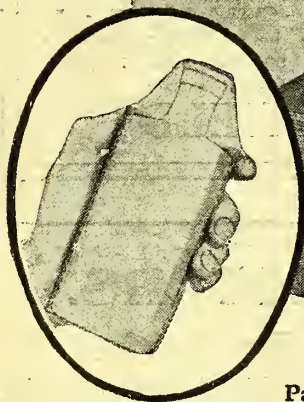
The **NEW** U.G.B. MEDICAL BOTTLE Service



Indispensable to the busy dispenser

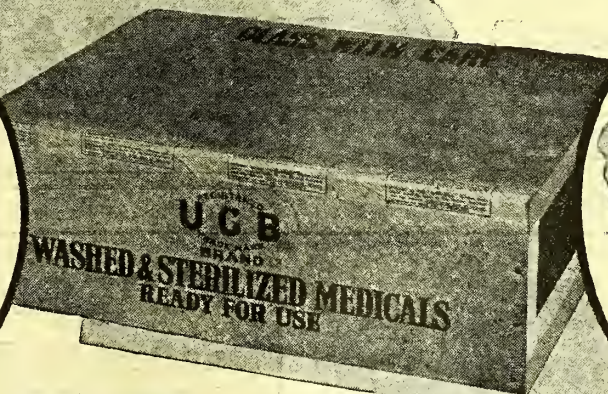
Photograph of actual package of Cork-mouth bottles with cover removed.

**Washed & Sterilized—
ready for use**



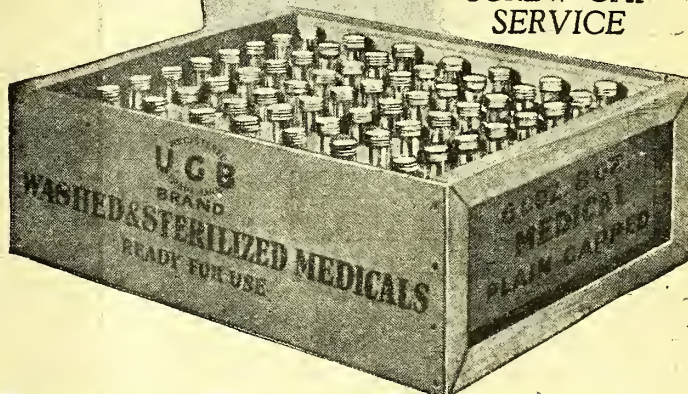
CORK MOUTH SERVICE

Packed in sealed non-returnable standardized fibre cartons.



SCREW CAP SERVICE

Photograph of actual package of Screw-cap bottles with cover removed.



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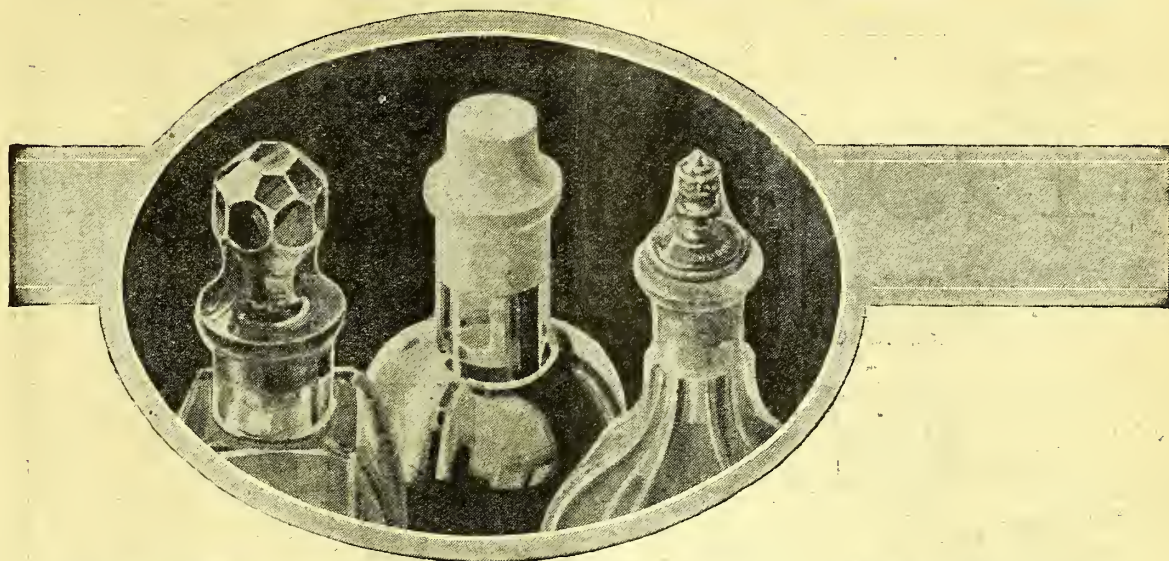
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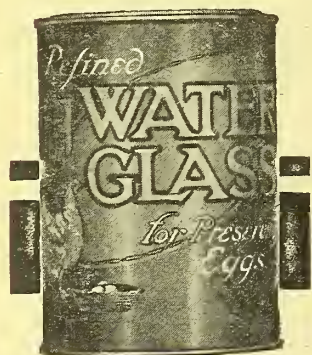
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THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C.4

MARCH 29, 1930

This Supplement is inserted in every copy of The Chemist & Druggist.

THE SUPPLY OF SUPPLEMENTS

The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note, therefore, that in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case the name and full postal address should be written on

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Telephone No.: CITY 2283.

May be consulted at their Offices on matters of Sale, Purchase and Valuation

1.—LONDON, S.E.—General Retail and Dispensing Business, with N.H.I.; returns between £40 and £45 weekly, with scope for increase; double-fronted shop; modern fittings and good working stock; held on lease; price £1,500, or near offer.

2.—HAMPSTEAD.—Good-class Retail and Dispensing Business, with Kodak Agency; returns exceed £2,000 per annum; net profit about £500; double-fronted shop, well fitted and stocked; convenient house; bathroom; private entrance; 16 years' lease; price £1,150.

3.—HORNSEY.—Family Retail and Prescribing Business, with Kodak Agency and N.H.I.; returns last year £1,936, with net profit £560; stock and fixtures estimated to be worth £825; good living accommodation; ground rent £8 per annum; lease 14 years; price, to include stock, fixtures, goodwill and lease, £1,750, or valuation terms entertained.

4.—WANDSWORTH.—General Retail and Dispensing Business; returns, last year, under management, exceeded £2,000; net profit £530; scope for increase under personal supervision; rent £120 per annum; sub-let £93; long lease; price £1,500; £500 can remain.

5.—READING.—Old-established middle-class Retail and Dispensing Business, with Kodak Agency; returns last year £1,240, with net profit £443; double-fronted shop; estimated value of stock and fixtures £500; rent £72 per annum; sub-let £104; private house available if required; price £850.

6.—EALING.—Good-class Retail and Dispensing Business, with Kodak Agency; returns last year exceeded £2,000; very good profits; single-fronted shop, well fitted in mahogany and fully stocked; rent £30 per annum; lease has 11 years unexpired—renewable; price £1,650.

7.—WESTERN SUBURB.—General Retail and Dispensing Business, established many years; returns, last year, £3,600, £200 from Optical; corner shop, well fitted and stocked; living accommodation; held on lease; rent £60; sub-let £7 10s.; price £2,800.

Messrs. O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone Profit, the Value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes confusion and loss.

8.—HERTS.—Unopposed Light Retail and Dispensing Business with Kodak Agency; no N.H.I.; returns £2,100, with net profit 30 per cent.; stock estimated to be worth £600 and fixtures £250; rent £1 weekly; rates about £3 per annum; new lease; terms, valuation of stock and fixtures, plus £250 for goodwill.

9.—SUSSEX COAST.—General Retail and Dispensing Business; returns £2,000 per annum, with net profit £450; rent £160; sub-let £95; held on lease; stock estimated to be worth £750 and fixtures £500; price £1,450.

10.—HOME COUNTY.—General Retail and Dispensing Business with Wine Licence; returns last year approached £2,650, with net profit exceeding £700; rent £100 per annum, which includes part of rates; stock estimated to be worth £1,050; terms, valuation of stock and fixtures, plus an agreed sum for goodwill; ill-health cause of sale.

11.—WARWICKSHIRE.—General Retail and Dispensing Business for Sale through ill-health; returns last year exceeded £2,800, with gross profit 32 per cent.; living accommodation; held on lease; stock and fixtures worth approximately £1,000; price £1,000, or valuation of stock and fixtures.

12.—ESSEX.—Good-class Retail and Dispensing Business with Post Office attached; returns last year £2,042, plus £310 from Post Office; double-fronted shop; fixtures old fashioned; living accommodation; vendor wishes to sell the freehold, but will grant a lease at a rental of £260; terms, valuation of stock and fixtures, plus £500 for goodwill.

13.—CROYDON.—General Retail Business, with N.H.I. Dispensing and Kodak Agency; old established; turnover about £2,000; double-fronted shop in main road; estimated value of stock and fittings about £1,000; good living accommodation; 19 years' lease; price £1,350, or near offer.

14.—PEMBROKE.—Old-established Business; very much neglected since death of owner; scope for large increase under personal supervision; double-fronted shop, well fitted in mahogany; large house, private entrance; vendor is desirous of selling forthwith, and will meet a purchaser reasonably.

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The present period would appear to be favourable from price standpoint, and Chemists desirous of retirement or change of locality will be well advised to communicate. All information treated in confidence, and correspondents are assured that their interests will be carefully guarded. If desired a visit could be made. Groups of shops are of interest.

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2.—DORSET COAST.—Light Retail Dispensing, with Kodak Agency; returns about £1,900; good position; modern pharmacy and house; price £1,100; freehold can be purchased.

3.—S. DEVON (small town).—Old-established, good-class Family Retail, returning about £1,300 under manager; good corner position; house attached; own property; retiring; valuation terms arranged, in all about £750.

4.—YORKS (W. Riding).—Progressive Light Cash Retail, with good N.H.I.; returns last year £1,400; net profit £400; modern pharmacy; stock and fixtures worth £350; price £1,000.

5.—SOUTH COAST.—Good-class Retail Dispensing and Photographic, in main shopping street, close to sea; returns under manager £2,000; good profits; large shop, modern fitted and fully stocked; price £1,500.

6.—HERTS (30 Miles Out).—Unopposed light country Retail, pleasantly situated; returns about £2,000; net profit 25 per cent.; lease granted; lock-up shop; well stocked; owner retiring; price £250 goodwill, plus valuation, in all about £1,100.

7.—NORTH MIDLANDS.—Modern Cash Retail, with good Photo trade; returns £2,300; audited books; good position; attractive pharmacy; price £1,350, or £500 plus valuation.

8.—LONDON (Surrey Suburb).—Old-established Light General Retail in main road position; returns £2,000; books audited; house attached; stock and fixtures worth £925; price £1,350.

9.—LONDON (Western Suburb).—Light Cash Retail, in busy main road; returns £1,775 under management; well-fitted shop; good house attached; held on long lease; price £1,050.

10.—LONDON, N.W.—Good-class Family Retail and Dispensing Business for Sale through ill-health; returns about £2,000 under management; good profits; handsomely fitted and good stock; price £1,800; part can remain.

11.—WEST MIDDLESEX.—£700 secures a good-class Suburban Business; present returns £25 weekly; scope for increase; modern well-fitted pharmacy, with house attached; family reasons necessitate a speedy sale.

12.—LONDON, N.—Cash Drug and Photographic Store, in main road; returns between £20 to £26 weekly, under female; plenty of scope; modern corner shop with house; price £750, or near offer.

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Tenders due 11th April, 1930.

Forms of tender available from the above at a fee (which will not be returned) of 5s.

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A list of these, with further particulars and form of Tender, may be obtained on application to the Superintendent's Office.

Tenders duly sealed are to be returned to the Superintendent's Office not later than April 4, 1930.

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Business Agency, Transfer & Valuation Department

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1.—BLACKPOOL.—Established Retail, Family and Dispensing Business, held on lease, with seven years to run, at rental of £90 per annum; large corner shop, well fitted in oak; good saleable stock carried; Kodak Agency. Further particulars on application. (24)

2.—BRADFORD.—Old-established Retail Family Dispensing Business, situated in good-class residential quarter; no near opposition; returns approximately £1,600; premises consist of large corner shop, nicely fitted and well stocked; excellent living accommodation; price, including property, about £2,000. Full particulars on application.

3.—LONDON, S.W.—For immediate Disposal, at reasonable price, group of three Chemists' Shops, held on good leases; one lock-up, two with dwelling accommodation, let off at good rentals; badly neglected; great scope for energetic man with organisation. Full particulars on application.

4.—BLACKPOOL, S.S.—Well-established Business, situate in busy thoroughfare; returns average £18 per week; premises comprise double-fronted shop with store room; house attached, let at £1 per week; price for freehold £1,500; stock, fixtures, fittings and utensils at valuation, approximately £420. Further particulars on application. (27)

5.—LEEDS.—Dispensing and Photographic Business for Disposal; lock-up shop; premises at present on quarterly tenancy, but security of tenure can be obtained; rent £45 per annum; returns £22 per week, plus N.H.I., which could be increased; stock approximately £450; price asked £1,000, or near offer. (30)

6.—MONMOUTHSHIRE.—Newly-established Business for Disposal; held on lease, seven years to run, at £54 12s. per annum; returns average £30 per week; lock-up, double-fronted shop, next to post office; no qualified opposition; large scope for Optics; none done in this district; only been under qualified management for six months; returns continually increasing. Further particulars on application. (28)

7.—LONDON, E.—Cash Retail and Dispensing Business; returns £23 per week; premises consist of double-fronted shop, back room, outhouse and upstairs flat; side entrance; modern shop front; lease will be granted for 7, 14 or 21 years at £91 per annum exclusive; price about £750 all at. (32)

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AGENT, already representing Wholesale Distributors in England, with valuable connection amongst Chemists in Irish Free State and Northern Ireland, is open to represent another house (any lines); will carry stocks if necessary. Reply 64/9, Office of this Paper.

AGENCIES (one or two) required; London and South of England. 67/30, Office of this Paper.

SOUTH AFRICA.—Representative well-known house, at present in England, returning in May; Sole Agencies considered one or two Proprietary lines. Applications invited to 167/892, Office of this Paper.

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BLACKPOOL.—Double-fronted empty Shop, with living accommodation; 6 years Chemist; no ingoings; also other shops, all in main street, including lock-up shop. Owner, 189 Church Street, Blackpool.

TO Let on lease, Lock-up Shop, 20 ft. x 16 ft., with room at rear suitable as store or shop parlour, 18 ft. x 10 ft., in good-class growing district, West Middlesex. Apply owners, Warren & Woods, Seaton, Norwood Green, Southall.

TO WHOLESALE DRUGGISTS.—Suitable extensive Premises to Let or for Sale, centre City of Cardiff; population 4 millions within 50 miles' radius; Cardiff is the radiating centre of Great Western Railway, and all South Wales has no Wholesale Druggist. "X.", 66/9, Office of this Paper.

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TO DENTISTS—BOURNEMOUTH.—To be Sold or Let, compact, sunny Corner Residence, with garage; the centre of a large district; no immediate opposition; dentist badly required. Address 69/1, Office of this Paper.

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BATHGATE, WEST LOTHIAN.—For Sale to close trust, old-established Chemist, Druggist, Ophthalmic, Kodak Agency and Photographic Business in Hopetoun Street, with valuable Proprietary; commodious shop fitted in solid mahogany, back shop, dispensary, warehouse, etc., with back entrance; turnover £1,225, under manager; N.H.I. Dispensing; energetic man could improve takings considerably. Apply Caesar & Howie, Solicitors, Bathgate.

BIRMINGHAM.—Good-class Retail, near centre, busy thoroughfare, handsome double-fronted shop, with storage space behind; 17-ft. frontage, 40-ft. deep, with excellent show windows; imposing newly-fitted and stocked shop; rent with rates £5 per week; long lease; commencing turnover under manager £1,400, but increasing and with plenty scope; Kodak Agency, and ample space for side lines; price £1,500, which is practically valuation of stock and fixtures. 68/581, Office of this Paper.

BOURNEMOUTH.—Retail and Dispensing Business, with Photo and Udal, for Disposal; situated in a nice residential district of this desirable town; good house and garden attached; rates low; electric light and gas, cheap; moderate rent; profits good and lease on premises; price £1,650. Particulars, "Sodii," 70/18, Office of this Paper.

CENTRE MIDLAND CITY.—Modern double-fronted lock-up shop facing station; good-class General Retail; compact and easily worked; average turnover £2,430 under manager; 37 per cent. gross profit; Kodak, Rexall and Udal Agency; up-to-date stock and fixtures; 10½ years' lease unexpired; price £1,250. 68/580, Office of this Paper.

CHESHIRE.—Splendid opportunity for young energetic qualified man to secure sound Business doing £750 cash, £250 N.H.I. per annum, increasing; healthy and clean working-class district; profits good; price as going concern £975, living accommodation inclusive. Bona-fide inquiries only to 61/390, Office of this Paper.

EAST HAM.—Death cause of sale; Family, Retail and Prescribing Business, N.H.I. and Photography; working-class neighbourhood; no opposition; good living accommodation; takings, under management, £1,138; price £850, or near offer. 69/14, Office of this Paper.

EAST LONDON (Main Road).—Large double-fronted Shop, including D. & P. rooms; Tanks and Drier; six-room Flat (h. & c. fitted); bathroom; lease 18½ years unexpired; old-established; takings £4,500 per annum, including N.H.I.; price £3,000; stock, etc., at valuation. 167/895, Office of this Paper.

EAST LONDON.—A real Pharmacy for sale; takings £2,973; gross profits £995; stock £897; lease 7, 14 or 21 years at £65 per annum; nicely-fitted plant for D. & P., latest; Kodak, Nyal Agencies; busy thoroughfare; turnover increasing despite depression; scope for further advance; cash price £2,500. Letter to "X.", 41 Selhurst New Road, S.E.25.

HARROW DISTRICT.—Good-class Family and Dispensing Business; indifferent health only reason for sale; unopposed, with excellent prospects; principals only; no agents. 70/5, Office of this Paper.

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LANCASHIRE (seaside resort).—Corner Shop on main road; residential part; Wines and Spirits; Photo and N.H.I. work; good position for Optics; also block of property, shop and house, with extra house on sunny side, double-fronted; bankers' references required; only prospective buyers answered. Apply 66/58, Office of this Paper.

LEEDS.—Good-class suburban Cash, Retail and Dispensing Business; established 30 years; audited accounts; N.H.I.; Kodak Agency; good house; low rent; well fitted; good stock-rooms; excellent reason for disposal; cash price £850; quick sale desired; further particulars on application. 62/58, Office of this Paper.

LONDON, S.W..—An opportunity occurs to acquire through exceptional circumstances a well-established Retail and Dispensing Business, occupying a prominent position in densely populated, good-class residential district; the returns are more or less on the conservative side, about £30 weekly; there is ample scope to considerably increase same; excellent living accommodation, side entrance, and garden; rental £60 on valuable lease of 14 years to run.

The above offers facilities either to a private chemist desiring a comfortable residential business, or to a company who might perhaps desire to sub-let the upper part for £100 or £120, and treat the same as a lock-up free of rent and rates.

Price £1,500, approximately one year's returns. For appointment enclose banker's reference to 67/25, Office of this Paper.

LONDON, S.E..—Business in main road; returns about £18 a week; will take £600 or near offer for quick sale; bargain for qualified man; opening for N.H.I. and Optics. 69/34, Office of this Paper.

MANCHESTER (near).—Chemist's Business for Sale; takings £625, at good prices; N.H.I. 120 per month, increasing; at present under management; under personal control could be greatly increased; double-fronted; electric light; good living accommodation; rent £59 (sub-let £58); rates £21; fittings include National Cash Register; stock £160; price, in all, £275. 68/33, Office of this Paper.

MANCHESTER.—For immediate disposal, nicely-fitted Pharmacy, at present under management; modern fittings, electric light, etc.; established last year; very busy road; thickly industrial area; N.H.I. Optics, etc.; house attached; rent £85 yearly clear; on lease; splendid scope for beginner; bargain for quick sale. Full particulars from 68/36, Office of this Paper.

MIDLAND Manufacturing Town near Birmingham; commanding main corner in main street; abnormally large window display space; good-class Retail, with Kodak and Udal Agencies; returns last four years under management average £2,550; gross profit 33½ per cent.; well-fitted shop; good saleable stock; 16 years' lease to run at very low rental of £150; rates £104; three-storeyed premises, with modern Developing, Printing and Enlarging plant capable of dealing with 1,000 spoils per day; ample scope for trade work; room for living accommodation or extensive storage space, together with separate side shop if required for Wholesale business; would suit chemist and photographic expert in partnership; price, including stock, fixtures, goodwill and lease, £3,250. 68/58, Office of this Paper.

MIDLANDS.—Bargain. Newly opened Business, double-fronted, with flat over, thickly populated, taking £12, plus 24 N.H.I. (increasing); nearest opposition ½ mile; three panel doctors near; scope to double; sound reason for disposal; rent £1 inclusive; price £100 (stock £60, fixtures £40); no goodwill. 67/25, Office of this Paper.

MIDLANDS.—Good-class Dispensing and Photographic; well-fitted double-fronted large shop; domestic and store rooms; gas and electric; good lease; low rent; very profitable turnover of about £2,000, increasing; accountant's figures available; full particulars to genuine inquirers; price about £1,300. 69/22, Office of this Paper.

ROSSENDALE (Lancashire).—Nicely-fitted and well-stocked Pharmacy; on busy main road; light Retail; N.H.I. 4,000 per annum, and Photograph; Kodak Agency; returns about £1,200; property vendor's; let on lease or for sale; price stock, fixtures and goodwill £950. 70/26, Office of this Paper.

SHEFFIELD.—Small but profitable Business for Disposal in industrial locality; good N.H.I.; has been neglected and could be much improved; satisfactory reasons for disposal; a bargain to quick purchaser. 70/27, Office of this Paper.

WEST OF ENGLAND.—Unopposed light country Retail Business; pleasantly situated and easily worked; returns £1,250; net profit £325; long lease at low rent; well fitted and stocked; price for early sale £800, or offer; worth special attention. Apply Berdoc & Fish, 41 Argyle Square, King's Cross, W.C.1.

WEST WALES.—Old-established Business for Sale; best position in town; large house and garden; double-fronted shop; returns approximately £2,000, including Optics; could be doubled; rent £60, plus rates; own property; fortune awaits young man qualified in Optics; will accept £400 deposit (banker's references), remainder by arrangement. Is this not guarantee? Genuine reason for disposal; genuine buyers only. 69/18, Office of this Paper.

DRUG Store, Photographic and Fancy Goods, Catford; station approach; smart shop; rent £68; basement sub-let, hair-dresser, £91; great chance for qualified man to do N.H.I. prescriptions to L.C.C. estate at hand 2,500 houses; takings by unqualified owner £20, accountant's figures; easily doubled; price for quick sale £600, includes £200 stock; lease 15 years. Whittome, Park & Co., 129 High Road, Balham.

FOR SALE, Central Drug Stores; solid mahogany fittings; good living accommodation; three bedrooms; good cellars; telephone; electric; splendid scope for qualified man; stock and fixtures £750; rent £60; rates £28. Baron, 22 Middleton Road, Royton, Oldham.

DISPENSING and Photographic Business (Kodak Agency), 12 miles London; established 1929; well-fitted shop with modern house attached (electric light and gas); the trade is not large at present, but the district is rapidly developing, and under proper management could be considerably increased; owner has good reasons for disposal; fittings and stock at value only. Replies 69/6, Office of this Paper.

FOR Sale in Midlands, Light Retail and Dispensing Business, with freehold premises containing shop, house and garden, in centre of main street of country town. Apply 69/280, Office of this Paper.

LOCK-UP Drug Store in growing district; takings average the last 3 years £1,000 per year; good prospects for qualified man; no chemist within a radius of 3 miles; stock £200, fixtures £125; rent 12s. 6d. per week and rates or £700 with property and land; owner retiring. 64/26, Office of this Paper.

OPPORTUNITY SELDOM KNOCKS TWICE.—Any young qualified Manager wishing to acquire sound Business at reasonable outlay here's your chance. Advertiser (Midlands) having bought larger business selling present one on easy terms; turnover (including N.H.I.) past 3 years average £1,350; capital down £400; small balance by arrangement; fullest particulars to genuine applicants. 69/32, Office of this Paper.

RECENTLY opened, well-fitted and well-stocked Pharmacy, artisan class district, E.12; new shop front; corner position; double windows; average takings £22 per week; N.H.I. 300 per month; good scope for Prescribing; sale due to dissolution of partnership; immediate living assured with good prospects; 7/21 years' lease; £70 per annum inclusive; price £750; part could remain. 69/4, Office of this Paper.

WHAT OFFERS?—Established Business in working-class district between Chester and Manchester; turnover £1,000; net profit £320; population 4,800 approximately; shop and house valued at £550; genuine reason disposal; lowest reasonable offer for cash secures. Write 61/39, Office of this Paper.

£750 CASH buys a high-class Pharmacy in Edinburgh; beautifully fitted and well stocked; a unique opportunity, as owner is compelled to leave town for health reasons; accountant's figures; only genuine buyers need apply; please enclose bank references, in confidence. Write in first instance for full particulars. 69/360, Office of this Paper.

SALES BY AUCTION.

IMPORTANT SALE OF CHEMISTS' FITTINGS.

5 LITTLE BRITAIN (close to G.P.O.), LONDON, E.C.1.

Removed from 329 Old Kent Road owing to lease expiring. CHEMISTS' SHOP FITTINGS, including Drug Rnns, Glass Rounds, Wall Showcases, Glas-fronted Counters, Dispensing Screens, Nests of Drawers, Silent Salesmen, Display Fittings, Cash Tills, Mirrors, Safes, Typewriters, Writing Tables, Filing Cabinets, and other items.

B. NORMAN & SON

will Sell by Auction at their Sale Rooms, as above,

THURSDAY NEXT at One.

On View Day Prior.

Catalogues on application.

BUSINESSES WANTED.

BERDOE & FISH are in immediate want of sound Businesses up to £4,000, and cordially invite correspondence from intending vendors. We have a large number of cash buyers waiting, and are able to negotiate sales quickly and without publicity. Transfer Offices, 41 Argyle Square, King's Cross, W.C.1.

MIDLANDS.—Established Business wanted, taking about £20, plus N.H.I.; expensive fittings not wanted; living accommodation essential; price must be reasonable. "Chemist," 1b Lister Street, Nuneaton.

PHARMACIST wishes to purchase Chemist's or Drug Store business anywhere in Northern Counties; cash waiting; make appointment, give no details; bank and trade references supplied. Mr. Dobson, 34 Rothsay Street, Newcastle Road, Sunderland.

SOUTH MANCHESTER OR STOCKPORT DISTRICT.—Advertiser requires a small Business in working-class district. Particulars (in confidence) to 67/3, Office of this Paper.

WANTED. Pharmacy or Drug Store in main road position on South Coast or Isle of Wight; a business capable of expansion with endeavour and initiative. Full particulars, lease, rent and rates, turnover for the past 3 years, also class of business done. Please forward photo to "Confidential," 66/10, Office of this Paper.

PARTNERSHIPS.

PARTNERSHIP desired by young, unqualified man; advertiser has had 11 years' Retail experience, Dispensing, Counter, Window-dressing and Photographics; capable of taking complete charge if necessary; desirous of joining either an established business or consider a prospective site to mutual interests. Particulars and offers, references, etc., write 70/2, Office of this Paper.

PATENTS.

THE Proprietor of British Patent No. 178,735, dated May 9, 1921, relating to "Tooth Brush," is desirous of entering into arrangements by way of a Licence or otherwise on reasonable terms for the purpose of exploiting the above patent and ensuring its practical working in Great Britain. All inquiries to be addressed to B. Singer, Steger Building, Chicago, Illinois.

SITUATIONS OPEN.

RETAIL (HOME).

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

ABERGAVERNNEY.—Chemist-Optician; good Window and Counterman; Family and Farming; non-mining; £4 per week, with house free and percentage on increased turnover. Ellis, Chemist, Brecon. Offers every chance of succession.

BRIGHTON.—A vacancy occurs for an experienced, qualified Assistant, about 30; must be used to high-class Pharmacy and a good Salesman. Apply, with fullest particulars, in writing, to Hart & Co., 57/8 East Street, Brighton.

CHESTER.—Junior, unqualified, male, of good appearance and address, accustomed to good-class Dispensing and Photographic business. Apply, giving particulars of experience, salary required (outdoor), and copies of testimonials, etc., Milling-Johnson, Ltd., Town Hall Square, Chester.

EAST KENT.—Competent, qualified man to manage branch; middle and working-class district; preference to one with sound references, and good Counterman and Prescriber. Photo and particulars to "Salol," 69/13, Office of this Paper.

HASTINGS.—Smart Manager required; must be able to make good displays and have up-to-date ideas; bonus and commission offered; state age, height, wage required, and when available; living accommodation. 167/899, Office of this Paper.

LLANDUDNO.—Lady Assistant required, immediately, with Dispensing, Counter and Photographic experience; must be pharmacy trained. State full particulars, with salary required (outdoors), and photograph, to Miss Hornblow, 4 Queen's Buildings, Llandudno.

LONDON, S.E.—Minor qualification, accurate and capable man wanted for Dispensing and assist Retail. Apply, stating references, experience, and salary required, to R. Barron, M.P.S., 27 High Street, Croydon.

LONDON, N.—Young, qualified Manager required for branch shop; must be good Dispenser, Counter-hand and Window-dresser. Apply, stating particulars of age, height, full experience, and salary required, to 67/5, Office of this Paper.

LONDON, N.W.—Qualified male Assistant wanted at once; age 21 to 24; N.H.I. and Private Dispensing, Counter, Photography and Window-dressing. Full particulars, age, height, experience, and salary to 68/21, Office of this Paper.

MANCHESTER SUBURB.—Wanted, immediately, young, qualified Assistant (male), good appearance, used to N.H.I. and Photography; quick, honest, and trustworthy. State age, salary, and all usual particulars, also photograph. Shuttleworth, Chemist, Flixton, Manchester.

POROTH, GLAM.—Assistant required, with knowledge of Photography and Window-dressing essential; one with experience in Optics preferred. State age, salary, etc., references. Davies Bros., Chemists, Poroth.

SHEFFIELD.—Qualified Manager wanted for small shop; Pre-scribing business. Full particulars to 167/897, Office of this Paper.

STAFFORD.—Smart, gentlemanly Junior Assistant immediately; one just out of apprenticeship might suit if well trained. Give full particulars of experience, age, and salary required, state when at liberty, to J. & H. A. Averill, Chemists, Stafford.

SOMERSET.—Wanted, qualified lady to manage branch at Glastonbury; permanency. Apply, stating age, experience, salary required, when disengaged, enclosing photograph (to be returned), to W. Deacor, Pharmacist, 5 King Square, Bridgwater.

SOUTHPORT.—Qualified male Assistant; must be accurate Dispenser and Window-dresser. Apply, stating age, experience and reference, wage £4 weekly. 70/9, Office of this Paper.

AN unqualified Assistant required (20-25) for small Family business near London; smart appearance; quick, accurate Dispenser; good Counter-hand; real hard worker and obliging; good prospects to right man; references must bear strict scrutiny. Write, stating usual particulars and salary required, 68/23, Office of this Paper.

CAPABLE, qualified man for small branch; one with initiative and able to work up a neglected business; good Window-dresser and tactful Salesman. Full particulars of experience and salary, and when disengaged, to H. F. Ferriss, 349 High Road, Lee Green, S.E.12.

HEPPELS, LTD., have vacancies for two really smart qualified Managers; must have undeniable references, and be up to date. Apply by letter, giving full particulars, to Frank A. Ringer, 16 Grosvenor Place, London, S.W.1.

IMPROVER or Junior; knowledge of Photography preferred; references must be first-class, both as regards ability and character; enclose photo. Give full particulars, including salary required. Apply Atkins, 53 East Hill, Wandsworth.

IMPROVER, 18-20, one just out of apprenticeship, required at once; must be good Salesman and Window-dresser; time could be arranged for studies. Broad, 80 Blythe Road, West Kensington.

JUNIOR Assistant (man) required; first-class Window-dresser; London experience essential; personal application only. Wavell & Co., 328 Vauxhall Bridge Road, Victoria, S.W.1.

LADY Dispenser and Assistant, capable, for busy working-class business; N.H.I.; £2 10s. per week; alternate Sunday evening duty; five minutes from Moorgate. Apply in person, Houseman, Chemist, 65 New North Road, N.1.

LADY (Minor qualification), of good address and pleasing manners; Dispensing and Counter; must be quick, accurate and neat; good-class business, London suburb; other ladies on staff; fortnightly holiday within 6 months. 70/22, Office of this Paper.

LOCUM Tenens required for one week from the 22nd to 28th April inclusive; applicants (male) must be qualified Chemists. Applications, enclosing testimonials, and stating previous experience (Hospital or such Institution preferred), to be sent to Major Raphael Jackson, Secretary, Queen Mary's Hospital, Stratford, E.15.

MANAGER, qualified in Pharmacy and Optics, for good-class Retail business. Full details and terms, apply James H. Wilson, Ltd., The Broadway, Crouch End, N.8.

MANAGER required, Harrow district; must be up to date and able to make good displays; bonus and commission offered to the right man; living accommodation available. State age, wage required, and when at liberty. 167/900, Office of this Paper.

QUALIFIED Assistant for Northern suburb; permanency if suitable; knowledge of Optics an advantage. State height, age, salary required, and full particulars to 67/23, Office of this Paper.

QUALIFIED Assistant to take charge of branch in quiet country town; one with good experience in Agricultural and general business; good worker and keen business man; abstainer; one other assistant kept; reasonable hours. Apply, with full particulars, to Mr. G. M. Perkins, Chemist, Knighton, Radnorshire.

QUALIFIED Lady Assistant, capable and trustworthy; able to take charge. State age, qualifications, salary required, etc., in first letter. Replies, in confidence, to B. Pollard, Drug Department, Dewsbury Pioneers' Industrial Society, Limited, Halifax Road, Dewsbury.

QUALIFIED Locum (lady or gentleman) required from April 17th to May 3rd inclusive. Apply, stating age and total salary required for period, to C. Lawrence, Ltd., 76 Watling Street, Gillingham, Kent.

QUALIFIED Manager for Branch, East Ham, E6; newly established; good opportunity for young man with ideas and energy; should be good Window-dresser and have knowledge of Photographic trade; salary and commission on increased turnover; must be trustworthy. Full particulars to R. Floyd, 11 Axe Street, Barking, Essex.

SMART, capable, unqualified Assistant, 22-28, for busy mixed business; Counter and Window-dressing. Age, experience, and salary required to 6 Lewisham Road, Lewisham.

TWO Lady Assistants and one Male Assistant. State wages and experience. Herbert's Drug Stores, 209 Vauxhall Bridge Road, S.W.1.

UNQUALIFIED Lady required immediately; Esher, Surrey. Apply by letter, giving full particulars, experience, salary, etc., Summers, 77 Rodney Court, Maida Vale, W.9.

UNQUALIFIED Assistant required in the Midlands; applicants must essentially be good Counter-men and Window-dressers; a splendid opportunity for making progress. Kindly give all particulars. 69/26, Office of this Paper.

UNQUALIFIED or Hall capable Junior (lady), 22 to 25, for small market town in Midlands, with good all-round knowledge of Window-dressing, Toilets, Dispensing and Agricultural requirements. Apply, with full particulars, giving age, salary, references, and photo, 69/16, Office of this Paper.

WANTED, smart, progressive Chemist, about 30 years of age; resident in Manchester district preferred. Apply Supervisor (Manchester), Taylor's, Chemists, 4 Exchange Street, Manchester.

WANTED, a smart, Unqualified Assistant, one with a knowledge of Photography and Optics preferred, but not essential. State age and salary required, references, Hotter, Chemist, Holbeach, Lincs.

WANTED, Unqualified Assistant, age 24-30, single, male; must be reliable Dispenser, good Window-dresser and possess Photographic knowledge. State age, salary required and usual particulars, with photo. Stewart & Co., 56 Fore Street, Kingsbridge, Devon.

WANTED, unqualified Assistant for Dispensing Counter; must have had good experience; neat and accurate worker. State age, height and salary required, etc., to 68/34, Office of this Paper.

WANTED, smart, qualified Assistant; Dispensing, Photography, Agriculture, good Salesman; N.E. Coast; stato wage required. 167/896, Office of this Paper.

WANTED, young energetic Manager, with view to succession, for Light Retail and Dispensing business in Midlands. Apply, with full particulars regarding experience, etc., to 69/28, Office of this Paper.

WHOLESALE.

PROCESS Worker, in London House, for Ointments, Syrups, Distilling, Compounding, Tinctures, etc. Write particulars, giving age and previous experience, to 167/891, Office of this Paper.

REPRESENTATIVE required by high-class Manufacturing Chemists to interview the Medical Profession and call on Institutions and the Trade in Lancashire and Yorkshire; must be well educated and a successful salesman; a knowledge of Biologicals preferred, but not essential. Write, giving full particulars, 67/7, Office of this Paper.

SPECIALITY Salesmen wanting progressive whole-time opportunity and possessing the speciality selling proofs and references reply from all districts stating age, height, last or present line, and exactly type and place of connection; only men determined to succeed need reply; car advantage, but not essential. 167/893, Office of this Paper.

TABLET Maker wanted; must be first-class machine man; knowledge of Pill Making an advantage, but not essential. As this post is in an entirely new department no good man need hesitate to apply. State age, experience, wages wanted. 67/4 Office of this Paper.

TRAVELLER (part time) for Scotland for the sale of Surgical Sundries; must have suitable connection among Chemists. Reply (in confidence) 68/18, Office of this Paper.

TRAVELLERS wanted to carry Perfumery and Toilet lines; commission only; must have good connection with best Retail firms. 65/15, Office of this Paper.

TRAVELLERS (resident London preferred) to carry Proprietary article as side line; high rate of profit for retailer; good advertisement matter. Apply, stating what, and how many lines already carried, and what territory covered. 167/894, Office of this Paper.

WINDOW-DRESSING.—Advertiser requires the occasional services of a gentleman with up-to-date ideas and ability to write up attractive show matter for Chemists' Packed Lines. Reply in confidence, with particulars of experience, terms, etc., 167/898, Office of this Paper.

(COLONIAL, INDIAN AND FOREIGN.)

ITALY.—Wanted, Sales Executive representing Toilet House, Italy; must speak Italian fluently. Apply, by letter, 167/890, Office of this Paper.

SITUATIONS WANTED.

RETAIL (HOME).

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

A.A.A.A.A.A., 24, qualified, single, disengaged, requires permanent position in good-class Pharmacy as Assistant or Manager, home or abroad, or relief work with view to permanency; 8 years' experience, town, country, suburbs, and West-End of London; experience of Wholesale with Drug House; excellent references. "Brincine," 33 Bridge Road, Woolston, Southampton.

A.A.A.A.—A Scot, qualified, 22, desires post, Locum or permanency; anywhere; disengaged early April. Apply J. J. Purdie, M.P.S., c/o Denny, 206 Woodlands Road, Glasgow.

A.A.A.—QUALIFIED, 27, as Manager or Assistant; all-round experience, London and provinces; resident Lancashire; disengaged. 68/37, Office of this Paper.

A.A.—QUALIFIED; 26; Manager or Assistant; fully experienced; keen and energetic; £4 10s. per week; disengaged; interview. "G. F.," 9 Solon Road, Brixton, S.W.2.

A.A.—QUALIFIED, 28, married, excellent all-round experience, Counter, Dispensing, Photography and Display, desires permanency; any capacity; disengaged. Dyson, 105 Elm Grove Road, Barnes, S.W.15.

A.—QUALIFIED, 24, good all-round experience as Assistant and Manager, desires position, London or suburb; reliable, trustworthy and good appearance; excellent references; disengaged. "B. W. N.," 161 Wakehurst Road, Clapham Common, S.W.11.

A.—QUALIFIED, 24, good all-round experience, Manager or Assistant, seeks permanency. "Chemist," c/o 498 Thornton Road, Bradford.

A LOCUM; qualified; long experience in all branches; active; excellent references; disengaged now. "S. C. J.," 54 Priory Road, West Hampstead, N.W.6. Phone: Maida Vale 8212.

A QUALIFIED, experienced, as Manager or Assistant; efficient, trustworthy, young and smart. Davies, 4 Rosehill Terrace, Swansea.

A QUALIFIED gentleman, 30, with excellent Dispensing and Counter experience, desires permanency; good references; moderate salary. 66/39, Office of this Paper.

A THOROUGHLY competent, unqualified Assistant seeks permanency in good-class business; highly recommended by present employer; free March 31. Wornell, 8 Farnham Road, Seven Kings, Essex.

A THOROUGHLY competent and experienced Assistant, unqualified, 38, married, seeks permanency in good-class business; disengaged April 30. "Radix," 70/6, Office of this Paper.

A DVERTISER seeks responsible management; alert, live business man; keen Buyer and Salesman; thoroughly conversant with Pharmacy as required to-day; married; abstainer; residential preferred. "Codex," 67/36, Office of this Paper.

A S Manager; 31; qualified 1920; hard worker; good all-round experience; Salesman, Window-dresser; well recommended; North-Western district preferred; interview. "Sutu," "Lynton," Meadow Drive, N.W.4.

A SSISTANT or Locum; London and provincial experience; Dispensing, Counter, Windows, Prescribing; unregistered; reliable. Harries, 16 Brixton Road, S.W.9.

A SSISTANT; worker; unqualified; good references; town or country; salary moderate. "Pollux," 7 Regent Place, London, S.W.1.

A SSISTANT or Locum; Dispensing, Counter, Photography; experienced; active; unqualified. "K.," c/o Hadfield, M.P.S., 108 Butcher's Road, Custom House, E.

A SSISTANT; unqualified; long experience in busy pharmacies, West-End, etc.; temporary or otherwise. Little, 9 Westbourne Street, Sloane Square, S.W.1.

A SSISTANT (Part I April) requires post; London preferred; 5½ years' excellent Dispensing, Counter and Photographic experience, including West-End; can manage; excellent references; smart appearance. Apply W. Evans, 33 Bonham Road, Brixton Hill, S.W.2.

A SSISTANT (Part I April) requires London experience, beginning May; 4 years' excellent Counter, Photographic experience; smart appearance. Apply Moore, 33 Bonham Road, Brixton Hill, S.W.2.

A SSISTANT; disengaged April 5; good all-round West-End experience. Arthur, 62 Caldecot Road, Denmark Hill, London, S.E.5.

COMPETENT and reliable qualified Manager, 33, experienced in all branches of the business, requires progressive permanency; London and district; excellent references. Apply "Chemist," 31 Park Avenue, Hillingdon, Middlesex.

COMPETENT, qualified Scot, 23, requires situation in good-class shop; 8 years' experience; excellent references; salary secondary consideration. 71/3, Office of this Paper.

DISENGAGED; M.P.S.; Locum or suitable permanency; experienced all round; good Dispenser. "M.P.S.," 156 Lower Clapton Road, E.5.

EASTER HOLIDAYS.—Locum, qualified, available whole or part period, April 12 to 28 inclusive. N. H. Mainprize, "Fern Bank," Otley, Yorks.

ENGAGEMENT wanted, Manager or Assistant; unqualified; 58; active; thoroughly trustworthy; Prescribing speciality; at nominal salary. Ewens, 58 Hamilton Street, Cardiff.

EXPERIENCED Locum; disengaged; town or country; any period booked; Easter now open; highest references. "Chemicus," 56 Rudloe Road, S.W.12.

FRENCH Chemist's Assistant, good Dispenser, 28, good references, seeks employment in English Pharmacy; some knowledge of English; could arrange exchange with English assistant, 68/30, Office of this Paper.

I AM 22 years old, good appearance and address, and fully qualified (M.P.S.), thorough all-round Pharmaceutical training, including first-class experience of Retail, Photographic business, now desiring engagement. Particulars to "Pharmacist," 67/17, Office of this Paper.

JUNIOR, 22, requires situation; 3 years' apprenticeship, with 6 months' part-time experience, London; Dispensing, Photographic, Window-dressing and Counter work. Hicks, Tresco, Scilly Isles. Replies to be sent to C. Dorrien-Smith (Miss), Gulval, near Penzance.

JUNIOR or Improver, 22, Public School, all-round experience, seeks permanent position, Birmingham district. 65/13, Office of this Paper.

JUNIOR; good experience and references; Liverpool, Chester or Birmingham districts. Evans, Medical Hall, Penmaen-mawr.

LADY, qualified, desires post, permanent or Locum; town or country; Doctor, Chemist or Institution; excellent testimonials. Sibley, Quarry House, nr. Dursley, Gloucestershire.

LADY Dispenser (qualified, Hall), 12 years' experience, highest testimonials, requires post with Doctor or Chemist in London. "A. H.," 156 Elgin Avenue, W.

LOCUM; qualified; single; 32; as Manager or Assistant; disengaged March 31. "Chemist," 7 Don Street, Jersey.

LOCUM; qualified; 30 years' first-class experience; highest references; open all dates; now booking. Parker, 8 Trinity Place, Hastings.

LOCUM; Relief; Manager; "not registered"; 20 years' experience; Panel, Counter, Prescriber, Salesman. "Smart," 130 Scott-Ellis Gardens, N.W.8.

LOCUM, qualified, now booking forward; vacant dates, July 7 to August 31; Western Counties preferred. S. Hoskins, "Woodstock," Falmouth.

LOCUM, M.P.S., disengaged, thoroughly experienced all round, including Institution work; engagements booked. "Pharmacist," 62 Charlwood Street, Belgravia, S.W.1.

LOCUM engagements required by qualified Pharmacist, age 35; available immediately. "T. F. S.," 9d College Road, Harrow.

MANAGER or Assistant; qualified; also qualified Chiropodist; good experience, Dispensing, Photographic and Retail; moderate salary; London or 25-mile radius; now disengaged. 68/19, Office of this Paper.

MANAGER or Senior Assistant; unqualified; 34 years' Wholesale and Retail experience; 17 years last post; London preferred. R. E. Sloc, c/o Wooltons, 28 Kilburn Lane, W.10.

MANAGER, 31, M.P.S., married, thoroughly experienced and capable, offers keen, trustworthy service for permanency; London district; living accommodation preferred. 71/12, Office of this Paper.

MANAGER or Locum; qualified; experienced Salesman, Prescriber, Photography; excellent references. "Chemist," 16 Blacklands Road, Catford, S.E.6.

MANAGER or Locum; qualified; excellent references; experienced; disengaged. Lyon, 108 North Side, Clapham Common, S.W.

MAY or June; smart Qualified Manager, 29, requires post as Manager; experienced; high-class Toilet, Window-dressing, Photography, Prescribing, etc.; town, country or seaside; salary £5 and commission. 69/2, Office of this Paper.

PHARMACIST, qualified, double Optical qualification, F.B.O.A. (Hons.), F.S.M.C., etc., middle-aged, keen Buyer, successful management, thoroughly experienced, seeks position as Manager with scope. "J.C.Q.O.," 17 Gratwicke Road, Worthing.

QUALIFIED, 24, good experience, Assistant and Manager, energetic and ambitious, desires position in S.E. or S.W. suburb giving some time for Optical Study; excellent testimonials; good appearance; reliable. "E. J.," 49 Marston Road, S.E.7.

QUALIFIED, 23, reliable, smart address, desires position in good-class Pharmacy; permanency preferred; interview if possible; disengaged. 67/19, Office of this Paper.

QUALIFIED desires position as Manager; Lancs or Yorks or Cheshire (Manchester district preferred). Brierley, 76 Rochdale Road, Middleton, Manchester.

QUALIFIED, 25, seeks post as Dispenser in good-class business. "Pharmacist," 61 Brook Lane, Newton Park, Chester.

QUALIFIED, 32, married, desires Managership or Senior; Locum entertained. Griffiths, "Rob Roy," Rawcroft Road, Preston, Paignton.

QUALIFIED; 47; single; all-round experience; Locum or permanency; references good; disengaged. "S.," 69 Lytchett Minster, Poole, Dorset.

CLEAR OUT—your Old or DamagedStock of Photo Goods,
Why keep them any longer? Turn them into CASH.

I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers, Cards (any sizes), Old Photo Goods or Cameras, Bromide Papers, Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.

S. E. HACKETT, 23 July Road, Liverpool

QUALIFIED, 24, good personal appearance, Manager or Assistant, excellent experience and testimonials, requires position in good-class London suburb; will wait for suitable vacancy. 68/31, Office of this Paper.

QUALIFIED, 33, Scot, married, desires post as Manager or Senior; town or country; any district; abstainer; references; disengaged. 71/2, Office of this Paper.

RELIABLE Unqualified Manager or Assistant; 25; London and country experience; used to large private and Panel Dispensing, Counter, Photographic (D. & P.); excellent references; willing worker; East or N.E. London or Essex preferred, but not essential. 69/19, Office of this Paper.

SALESWOMAN; Drugs, Toilet and Perfumery; disengaged. Miss Driffeld, 47 Birch Grove, West Acton, W.3.

STUDENT, age 20 years, completed Part II course, would like holiday post during summer vacation (July to September); sound knowledge every branch of Photography, Dispensing, Window-dressing and Counter. Varley, 58 Milton Road, West Hartlepool.

UNQUALIFIED; all-round; West-End experience; 24; capable Dispenser; first-class Salesman; permanency or season. Alford, c/o 152 Holdenhurst Road, Bournemouth.

WANTED, situation as Junior Assistant; age 19½ years; 4 years' experience; good references. John Mould, North Luffenham, Stamford.

YOUNG lady, 20, desires post as Assistant; Counter and Window-dressing; good experience and references; Liverpool or suburbs. 66/5, Office of this Paper.

YOUNG Pharmacist, engaged in West-End, desires change (shortly); Senior Assistant in good-class Pharmacy; excellent experience in high-class Dispensing, Toilet and Photographic business; keen; reliable. 70/7, Office of this Paper.

WHOLESALE.

A FIRST-CLASS Salesman, with good connection Chemists, Hairdressers and Stores, South of England and Wales, is open to carry a side line or represent a good House; own car. 69/40, Office of this Paper.

A LABORATORY Hand seeks situation; 34, ten years' manufacturing experience, general and steam; accurate, keen, trustworthy; good references; disengaged. P.C.B. 44/19, Office of this Paper.

A S Representative, energetic young man of good appearance; enthusiastic and ambitious; at present large multiple firm as Assistant, but desiring greater scope; 10 years' Retail experience in various parts of country. 44/32, Office of this Paper.

GENTLEMAN, 31, good personality and address, 12 years' exceptional experience as Representative and Sales Organiser, seeks representation with house of repute; sound connection Chemists and Wholesalers, West of England and South Coast; own car; highest references. 70/19, Office of this Paper.

PERMANENT, progressive Representative post with well-known house of repute required by experienced Traveller with valuable Chemist connection in South and West of England; own car; salary, commission, expenses. 67/27, Office of this Paper.

REPRESENTATIVE, 24, married, connection London and part of Midlands, requires position; 4 years' experience; tall; healthy; energetic; hard worker; drive car; salary, expenses, commission. 67/18, Office of this Paper.

REPRESENTATIVE requires engagement; many years' first-class experience; Travelling, Medical, Wholesale and Specialities. "Statim," 60 Florence Road, Wembleton.

REPRESENTATIVE, 20 years' experience of the trade, five years with one of the leading Proprietary Houses, desires engagement; spade work a speciality; highest references; own car. 70/4, Office of this Paper.

YOUNG man of good appearance, enthusiastic and ambitious, desires post with prospects; thoroughly experienced Book-keeper, general office routine, etc. 70/24, Office of this Paper.

(COLONIAL, INDIAN AND FOREIGN.)

A.A.A.A.—A qualified (lady) Pharmacist desires position Pharmacy and improve language; fair knowledge of French. 69/37, Office of this Paper.

QUALIFIED Manager, 33, single, now abroad, desires change; any hot climate; honesty and efficiency guaranteed; abstainer; free at short notice; permanency wanted. 59/2, Office of this Paper.

FOR SALE.

FOUR D. & P. Drainpipe Tanks, glazed interiors, about 40in. by 9in. internal diameter; properly cemented; cost 20s. each. What offers, whole or part? Bowden, Chemist, Eastcote, near Harrow.

FOR SALE.—Bent glass Mahogany Counter Case, 9 ft.; also 6-ft. Silent Salesman, 3 glass shelves. Apply Graham, Chemist, 10 Station Parade, Willesden Green.

NATIONAL Cash Register; all the latest devices; equal to new and guaranteed perfect; cost £100; what offers quick sale; must sell. Apply 67/22, Office of this Paper.

PHARMACY Fittings for immediate sale, comprising mahogany Wall Case, mahogany Drug Range, 3 mahogany nests of Drawers, plate-glass Counter, best plate-glass Counter Case, small Wall Cases, Shop Rounds (recessed), Remington Cash Register (perfect), Carboys, Tier Stands, Window Enclosure, Electric Mortar and Pestle, Sky Sign, ditto "Chemist" Sign, ditto 2 x Flambeaux, Balances, Apparatus, Cameras, Optical Equipment; grand opportunity for beginner or branch pharmacy. Full particulars gladly sent. Write in first instance, 69/36, Office of this Paper.

MISCELLANEOUS.

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